

# **What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs**

**Lauren Charlotte Daniel**

**A thesis submitted in partial fulfilment of the requirements of the  
University of East London for the degree of Professional Doctorate in  
Clinical Psychology**

**May 2020**

## 1.0 ABSTRACT

Mental health professionals regularly make judgements about the plausibility of others' belief claims and have the socially sanctioned power to label a belief as delusional. However, little is known about how these judgements are made and the little research that exists suggests that they may be susceptible to a range of influences. There is also relatively little research exploring how the general public judge the plausibility of belief claims despite their judgements influencing who accesses professional help. As those who train as mental health professionals come from the general public, as a first step to better understanding professionals' judgements about belief plausibility, it seemed reasonable that this study explored influences on the general populations' judgements. In contrast to traditional quantitative approaches which require a *priori* assumptions about the investigated constructs, a Q-methodology approach was adopted as it is designed to explore numerous available accounts on a particular topic. Conspiratorial beliefs were also chosen as it is likely that a general population sample will have encountered them and they also share certain features of the rarer unusual beliefs encountered in mental health services. The author conducted two Q-sorts; the first was designed to better understand how participants conceptualised conspiracy beliefs, whilst the second involved an exploration of the factors that might influence plausibility judgements. An online Q-methodology programme was used and 57 participants were recruited via opportunity sampling. The data was analysed using PQMethod (Schmolck, 2002). Analysis of Q-sort 1 extracted five different factors, or viewpoints, for conceptualising conspiracy beliefs whilst Q-sort 2 extracted four accounts describing which aspects of a belief or believer made it less credible. The areas of commonality and difference between these factors was discussed with reference to the relevant literature for both conspiracy and delusional beliefs. The study was also critically reviewed and wider implications discussed.

## Table of Contents

1.0 Abstract .....	1
2.0. Introduction .....	7
2.1. Thesis Overview .....	7
2.2. Chapter Introduction .....	7
2.3. The Continuum Perspective of Delusions .....	9
2.4. Assessing Plausibility and the Diagnostic Process .....	14
2.4.2. The Diagnostic Interview .....	16
2.4.2.1. Reliability, validity and a lack of conceptual consistency within the diagnostic interview .....	16
2.4.2.2. Assessing delusions and culture.....	20
2.4.3 Implicit Biases within the Diagnostic Interview.....	21
2.4.3.1. Social inequalities and implicit psychiatric norms .....	21
2.5. Conspiracy Beliefs .....	24
2.5.1. What is a Conspiracy Belief? .....	25
2.5.2. Prevalence and Socio-psychological Characteristics of Conspiracy Believers .....	27
2.6. Aims and Justification .....	30
3.0 Methodology .....	33
3.1 Chapter Introduction .....	33
3.2. Overview of Q-methodology and the Epistemological Position.....	33
3.3. Rationale for Choosing Q-Methodology.....	35
3.4. Study Design .....	36
Figure One. Visual depiction of a quasi-normal distribution.....	41
3.5. Participants .....	41
3.6. Ethical Considerations .....	42
Table 1.....	43
3.7. The Analysis Process .....	45
3.7.1. Q-Sort One.....	47
3.7.2. Q-Sort Two.....	47
3.7.3 Interpreting the Data .....	48
4.0 Results: How are Conspiracy Beliefs Defined .....	49
4.1. Chapter Introduction .....	49
Table 2.....	50

4.2. Interpretation of Factors.....	51
Table 3.....	52
Table 4.....	52
4.2.1. Factor One – Conspiracy beliefs are False, Illogical and Harmful Beliefs .....	55
4.2.1.1. Characterising statements .....	55
4.2.1.2. Characteristics of the sorters .....	56
4.2.1.3. Factor summary .....	57
4.2.2. Factor Two – What gets Labelled as a Conspiracy Belief are Attempts to Expose the Truth .....	57
4.2.2.1. Characterising statements .....	57
4.2.2.2. Characteristics of the sorters .....	58
4.2.2.3. Factor summary .....	59
4.2.3. Factor Three – There are Different Kinds of Conspiracy Beliefs, with Different Consequences .....	60
4.2.3.1. Characterising statements .....	60
4.2.3.2. Characteristics of the sorters .....	60
4.2.3.3. Factor summary .....	61
4.2.4. Factor Four – Conspiracy Beliefs involve Entertaining Beliefs about Elites Acting Conspiratorially but do not Prevent them from Gaining Power..	61
4.2.4.1. Characterising statements .....	62
4.2.4.2. Characteristics of the sorters .....	62
4.2.4.3. Factor summary .....	62
4.2.5. Factor Five – Conspiracy Beliefs are Unsophisticated Beliefs about Religious Groups and Politicians Held by a Self-Reinforcing Minority .....	63
4.2.5.1. Characterising statements .....	63
4.2.5.2. Characteristics of the sorters .....	64
4.2.5.3. Factor summary .....	64
4.3. Chapter Summary.....	65
5.0 Results: How do People Judge the Plausibility of Conspiracy Theories ..	66
5.1. Chapter Introduction .....	66
Table 5.....	66
5.2. Interpreting Factors.....	68
Table 6.....	68
Table 7.....	69

5.2.1. Factor One – A Beliefs Plausibility is Judged through Evidence, Consensus and Credibility .....	71
5.2.1.1. Characteristic statements .....	71
5.2.1.2. Characteristics of the sorters .....	72
5.2.1.3. Factor summary .....	72
5.2.2. Factor Two – The Plausibility of a Belief Involves Judgements of the Evidence and the Credibility of the Believer .....	73
5.2.2.1. Characteristic statements .....	73
5.2.2.2. Participant characteristics .....	74
5.2.2.3. Factor summary .....	74
5.2.3. Factor Three – Judgements of Plausibility are Influenced by Evidence, Credibility and Consensus, but also Characteristics of the Believer .....	75
5.2.3.1. Characteristic Statements .....	75
5.2.3.2. Characteristics of the sorters .....	76
5.2.3.3. Factor summary .....	76
5.2.4. Factor Four – Plausibility is Influenced by Consensus and Incoherence, but also How People Engage with their Beliefs .....	77
5.2.4.1. Characteristic statements .....	77
5.2.4.1. Characteristics of the sorters .....	78
5.2.4.2. Factor summary .....	78
5.3. Chapter Summary .....	79
6.0 DISCUSSION .....	80
6.1. Chapter Introduction .....	80
6.2. Summary of Research Questions .....	80
Table 8 .....	80
Table 9 .....	81
6.3. Discussing Findings within the Context of the Literature .....	81
6.3.1. Conspiracy Beliefs .....	82
6.3.1.1. Conceptualisations .....	82
6.3.1.2. Judgements of plausibility .....	84
6.3.2. Delusions .....	85
6.3.2.1. Conceptualisations .....	85
6.3.2.2. Judgements of plausibility .....	87
6.4. Critical Review .....	91
6.4.1. Evaluation of the Research .....	91

6.4.1.1. Contribution .....	91
6.4.1.2. Credibility .....	92
6.4.1.3. Rigour .....	92
6.4.2. Study Limitations .....	93
6.4.2.1. Limitations of the methodology .....	93
6.4.2.2. Limitations of the design .....	94
6.4.2.3. Online difficulties.....	95
6.4.2.4. Recruitment of participants .....	95
6.4.3. Reflexivity.....	96
6.5. Implications.....	98
6.5.1. Conspiratorial Beliefs .....	98
6.5.2. The Diagnosis of Delusional Beliefs .....	100
6.6. Final Comments.....	101
7.0. References .....	102
Appendix A – Glossary of Key Q methodology Terms.....	118
Appendix B – The Concourse for Each Research Question .....	120
Appendix C –Q-Sets One and Two .....	127
Appendix D – Detailed Description of the Methodology.....	131
Appendix E - The Advert, the List of Locations Contacted and the List of Locations that Posted .....	135
Appendix F – Information Sheet .....	138
Appendix G – Participants Consent Form.....	141
Appendix H – Instruction Sheet .....	143
Appendix I – Ethics .....	148
Appendix J – Debrief Sheet .....	171
Appendix K - PQMethod 'Unrotated factor matrix' output .....	173
Appendix L – Alternative Factor Solutions for Q-Sort One.....	177
Appendix M - Alternative Factor Solutions for Q-Sort Two .....	180
Appendix N – Factor Loadings for Q-Sort One .....	183
Appendix O – PQMethod 'Unrotated Factor Matrix' Output 1- Sort Two .....	185
Appendix P – Factor Loadings for Q-Sort One .....	189

## **Acknowledgements**

I would like to thank my supervisor Dr David Harper who has supported me patiently from the start of this doctoral journey, and whose guidance and expertise have been invaluable throughout this entire process.

I also could not have finished this thesis without the love, encouragement and unwavering support of my family and friends – I am eternally grateful.

I would like to say a special thanks to Adam, for patiently tolerating another three years and for always encouraging me to carry on.

## **2.0. INTRODUCTION**

### **2.1. Thesis Overview**

Mental health professionals regularly make decisions about the plausibility of belief claims and yet little is known about which factors may influence their decision-making processes. By recruiting from the general population, this thesis will explore which factors may affect judgements of plausibility using Q-methodology. This is a useful exploratory method for investigating areas that are not well understood and when there are few *a priori* assumptions.

Within this chapter, the author will initially consider the clinical relevance of this issue by discussing how beliefs are judged to be delusional. This will include a consideration of how delusions are currently understood, and previous research which has explored how mental health professionals and members of the general public evaluate the credibility of belief claims. The author will then consider this more specifically by focussing on conspiracy beliefs, as conspiracy beliefs share a number of features with delusional beliefs and so provide a non-clinical analogy. This will again be discussed within the context of how conspiratorial beliefs are understood and which factors may influence judgements of their plausibility. To begin, however, the author will briefly introduce the overall aims of this study.

### **2.2. Chapter Introduction**

Unusual beliefs, or delusions, feature as part of the diagnostic criteria for all main psychotic disorders and have traditionally been regarded as one of the most important symptoms for diagnosis (American Psychiatric Association, 1994; Bortolotti, 2009; World Health Organisation, 1992). How a belief is understood to be delusional, however, and how it is differentiated from other types of belief claims has become one of the most elusive problems in psychology (Sanati & Kyratsous, 2015). Though there are numerous different attempts to conceptualise delusions, the most widely held and conformed to conceptualisation within clinical practice is derived from the American



Psychiatric Association (APA, 2013). The most current version of this definition is found in the glossary of the Diagnostic Statistical Manual-5 (DSM-5) as follows:

A false personal belief based on incorrect inference about external reality that is firmly held despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof to the contrary. The belief is not one ordinarily accepted by other members of the person's culture or sub-culture (i.e. it is not an article of religious faith). When a false belief involves a value judgement, it is regarded as a delusion only when the judgement is so extreme as to defy credibility (American Psychiatric Association, 2013: 819).

Based on this understanding, Georgaca (2004) argues that there are four key features that would suggest that a belief is delusional. These include: a) implausibility (i.e., the belief is considered to be false or unlikely); b) the belief is idiosyncratic (i.e., it is not acknowledged by members' of the believers' social group); c) the belief is held with conviction (i.e., it is believed with absolute certainty) and d) the belief is incorrigible (i.e., it will not be revised despite dis-confirmatory evidence). Of these four characteristics, Georgaca (2004) suggested that implausibility is the most important criterion due to its equation with falsity, and the predominant understanding of delusions within the psychiatric literature is that they are 'false beliefs'.

Judgements of the plausibility of others belief claims are not only made by mental health professionals, but also by members of the general population. Such judgements can have significant consequences for a believer, such as within societal, clinical or even legal contexts. Despite some important exceptions (Boyle, 2002; McCabe, Leudar & Antaki, 2004; May, 2012), however, very little research has examined the specific processes that determine how some belief claims come to be seen as 'unusual' or 'delusional'. The overall aim of this thesis is thus to explore which factors influence how members of the general public judge the plausibility of belief claims. The author has chosen to recruit members of the general public as they make constant decisions about the plausibility of others' belief claims and thus have a

significant impact on who is referred to services. It can also be argued that mental health professionals are a subpopulation of this general population.

Moreover, whilst previous research has typically focussed on examining the beliefs of clinical populations, a wealth of research (discussed below) suggests that delusional beliefs are not extreme and rare, but nuanced and relatively common within the general population. Despite this, the author will focus specifically on conspiracy beliefs as they share numerous features with delusional beliefs, but are a type of unusual belief that the general public will be more familiar with. The author hopes that using conspiracy beliefs will provide a better understanding of the factors that are important when members of the general public judge the plausibility of unusual beliefs. This would help determine whether the criteria outlined within the DSM-5 for diagnosing delusions matches the criteria used by the general population, or whether some criteria are missed or others are redundant.

The author conducted a narrative review rather than doing a systematic review as the issues addressed in this study (e.g., plausibility of delusional or conspiratorial beliefs) have been studied in very different ways by researchers in different fields using different constructs, and so the author needed to draw upon different literatures and concepts. A narrative review is helpful when research areas are not well established, the search parameters are unclear and when specific search terms may not identify relevant papers. The author does acknowledge, however, that by conducting a narrative review, the review might have been influenced by the authors preconceptions and so relevant research may have been missed, though the author tried to circumvent this by following recommendations for conducting a narrative, outlined by Slavin (1995).

### **2.3. The Continuum Perspective of Delusions**

Delusional beliefs have long been considered an exclusive feature of more severe psychiatric disorders such as schizophrenia. The common assumption within the psychiatric literature and theory of delusions is that they are 'abnormal' in some way (Harper, 2004, 2011b). It has been proposed, however, that there are two problems with this idea.

Firstly, studies regularly find that members of the 'normal' population score highly on measures of apparently 'abnormal' beliefs (Harper, 2004, 2011b). Whilst prevalence estimates are likely to vary in accordance with the content of a delusion and the criteria used for assessment, studies of the general population estimate that approximately 1-3% of people have beliefs that would be considered delusional with a severity equivalent to clinical cases of psychosis. A further 5-6% are also estimated to have delusional ideation but of slightly less severity (Freeman, 2006). Another general population survey of the UK also demonstrated that seemingly 'unusual' beliefs are actually relatively common, with 45% of people believing in telepathy, 45% believing that it is possible to predict the future and 31% believing in ghosts (Social Surveys/Gallup Poll Ltd, 1995).

Secondly, studies have found it difficult to discriminate between 'normal' and 'deluded' people on delusion-type measures (Harper, 2004, 2011b). The Peters Delusions Inventory (PDI) (Peters, Joseph & Garety, 1999a), for example, has been used to demonstrate nuance in beliefs considered to be unusual. The PDI is a self-reported questionnaire which contains questions about beliefs extracted from lists of psychiatric symptoms, but psychiatric terms are replaced with everyday language, e.g., 'do you ever feel that you are a very special or unusual person?' Participant's responses to these questions are measured in terms of the conviction with which they held the belief, the distress related to the belief, and the individual's preoccupation with the belief.

In one study, Peters et al. (1999a) used the PDI to compare inpatients with a diagnosis of psychosis to members of the general population. They found that the inpatient sample had higher scores on the PDI, but that the range of scores of the general population and the inpatients samples overlapped, with some individuals from the former sample scoring higher than the latter. This finding was also replicated with a larger sample (Peters, Joseph, Day & Garety, 2004), with 11% of the general population sample scoring higher than the average of the inpatient sample. Both studies thus demonstrated that the PDI could not effectively differentiate between inpatients with a diagnosis of psychosis and certain members of the general population. However, the inpatients could be differentiated from the general population in terms of being more preoccupied and distressed by their beliefs, and holding their beliefs with more conviction.

Similarly, Peters, Joseph and Garety (1999b) used the PDI to compare the scores of inpatients with a psychotic diagnosis to two control groups (non-religious people and Christians), but also to members of two New Religious Movements (NRMs; Druids and Hare Krishna's). The researchers included the NRMs to create an analogous context where people held unusual beliefs but still functioned within society. They found that members of the NRMs had significantly higher scores than control groups on all measures of delusions besides distress. There was no difference between members of the NRMs and the inpatient sample in the quantity or strength with which beliefs were held but the inpatients showed significantly more distress and preoccupation with their beliefs. These studies thus suggest that the unusual content, conviction or number of beliefs held is not necessarily problematic, but difficulties are largely determined by the relationship people have with their beliefs and how much they interfere with their lives (Scharfetter, 1980).

Such studies thus suggest that sharply differentiating between beliefs as either pathological or normal would be an over-simplification. Some have argued that delusions may be better understood as situated along a continuum (e.g., Freeman, 2006; Johns, 2005; Peters et al., 1999a), where the delusions seen in psychosis exemplify the severe end of the spectrum, and their presence within the general population reflects an attenuated form. For example, Freeman (2006) indicated that suspicious thoughts exist upon a continuous distribution, and so one's belief that the government is plotting to kill them could be located on the same continuum as another's suspicion that a neighbour is persecuting them. Freeman et al. (2005) also suggest that the most common and least severe belief type (30-40% of respondents) relate to more social anxieties or interpersonal worries. The most severe belief types expanded upon these milder ideas and were related to ideas of reference (e.g., thoughts about others trying to inflict harm upon them, and conspiracies known to the general public). They also found associations between holding more severe paranoid beliefs and individuals who felt excluded, inferior or marginalised within society.

### 2.3.1. The Relation to Meaning

This continuum approach to understanding delusional beliefs also supports the wealth of research which suggests that delusions make sense when considered within peoples' social reality. Historically, the influence of

biological or psychiatric theories of delusions has meant that there has been more interest in whether someone has a delusional belief than the content of the belief (Harper, 2011a). Within these frameworks, delusions were seen as symptoms of illnesses such as schizophrenia, and thus 'empty speech acts', with no connection to anything regarding the individual or their world (Berrios, 1991). It was thus considered that discussing delusional beliefs meant that the clinician was 'colluding' with the individual (McCabe & Priebe, 2008).

Other attempts to understand delusions include cognitive theories, which link delusions to factors such as reasoning biases, certain thinking styles, negative self-beliefs, and difficulties inferring the intentions of others (e.g., Freeman, Garety, Kuipers, Fowler & Bebbington, 2002; Freeman & Garety, 2014; Garety & Freeman, 1999). Kinderman and Bentall (1997), for example, compared the causal explanations for positive and negative hypothetical social events between a non-patient sample and 'paranoid' patients. They found that the former group were more likely to attribute adverse events to situational or external circumstances whilst the latter group were more likely to locate the blame in other individuals. This could be seen to indicate an attribution or reasoning bias in the group considered to be 'paranoid'. Alternatively, it could be argued that making 'other-blaming' attributions for negative events is an adaptive function of hierarchical societies, which is systematically employed by dominant groups to disrepute subordinate groups (Boyle, 2002).

This fits with other recent research which has focussed on the meaning underlying delusional beliefs. One study showed that individuals who had a diagnosis of psychosis scored as high on a measure of the meaning and purpose of life as individuals training to be Anglican priests, and higher than controls. Before developing their beliefs, many reported feeling lonely, inferior and purposeless (Roberts, 1991). Other research has found connections between the themes in an individual's delusional beliefs and their current or previous everyday lives (Rhodes & Jakes, 2000). Mirowsky and Ross (1983), for example, demonstrated correlations between paranoid beliefs, victimisation and social inequality. In a population survey of Mexico and Texas, they found that the individuals who had the most paranoid beliefs were the working class Mexican women, who were also considered to have the least social power and at greater risk of exploitation. It could thus be argued that a paranoid worldview would protect this group of women who are continuously exposed to threat as a

result of their social position. It thus also highlights the importance of considering the biographical context of an individual's belief and whether it relates to adverse experiences.

A similar explanation may apply to the heightened rates of psychosis in Black and Minority Ethnic (BAME) populations within the UK and their experience of racism. For example, within the UK, individuals from BAME populations are 50% more likely to be diagnosed with schizophrenia than their white peers (King, Coker, Leavey, Hoare & Johnson-Sabine, 1994), especially when living in predominately white areas (Boydell et al., 2001), or when they reported experiencing racism within the last year (Karlsen & Nazroo, 2002). The idea that black people have more paranoid beliefs was first introduced by Grier and Cobbs (1968) with the concept of "healthy cultural paranoia". They explained that paranoid beliefs and behaviour do not reflect psychopathology, but are a normal and adaptive response to historical and current experiences of discrimination and social oppression. Such research thus suggests that what we call delusions may actually be an adaptive response to someone's social circumstances.

Freeman et al. (2005) thus suggest that wariness about the intentions of others is adaptive in many situations, though such thoughts may become problematic if they become excessive, are unfounded, or causes distress. In line with this, Cromby and Harper (2009) propose a social constructionist perspective of paranoia and postulate that paranoia should be viewed as a type of story embodied within individuals, which reflects their different life experiences. They suggest that psychiatry's focus on the falsity of delusional beliefs has meant that they have often overlooked the idea that many beliefs are metaphorically true and reflect numerous adverse experiences, including those that result from social inequalities and the impact it has on an individual's life.

Such research has important conceptual and clinical implications for diagnosing delusions and the lack of focus on causal and contributory social injustices has serious ethical implications (Kvaale, Gottdeiner & Haslam, 2013; Scrutton 2015a; Scrutton 2015b). This is particularly important as many people who have 'delusional' beliefs feel that they are normal, meaningful (not medical) experiences and do not feel that they require professional help (e.g., Gunn & Bortolotti, 2018; Weeks & James, 1997). Researching the topic of eccentricity,

Harper (2011a) identified numerous people who remain content and functioning in everyday life despite holding unusual beliefs; such as Sun Ra, a prolific recording artist who claimed to be an alien from Saturn, and David Icke, who is a well-published author who regularly makes conspiratorial claims.

So far in this chapter, the author has discussed evidence that suggests that delusional beliefs are not unusual, pathological or 'abnormal' experiences of clinical populations, but exist along a continuum within the general population. The author has also discussed research that suggests that delusional beliefs are more than just a 'symptom' of an illness but are a response to real events in a person's social world. It is thus the context of beliefs and their 'fit' with a person's life that may determine whether they become problematic. Despite this research, however, it is not clear how a belief comes to be considered delusional and why some beliefs are less acceptable than others. It is also not clear how implausible a belief needs to be before it is considered delusional, or whether the mere presence of an implausible belief is enough. This thus leads to questions about who is given the power to decide that a belief is 'unusual' and how these claims are legitimised. In consideration of these questions, the author will next consider how judgements of plausibility are made within the diagnostic process.

## **2.4. Assessing Plausibility and the Diagnostic Process**

### **2.4.1. Judgments of Plausibility from Members of the General Population**

Prior to seeing a psychiatrist, the plausibility of an individual's beliefs will have already been questioned by those around them, and thus a decision made that the individual needs to see a professional (Coulter, 1973). Coulter (1973) alleges that a psychiatrist only confirms evaluations that have already been made by the people around an individual. This is likely to be the individuals' family, but may also come from others (e.g., strangers in the street). A diagnosis could thus be seen as medical classification of a pre-existing, normative social judgement (Rogers & Pilgrim, 2014). In a society without psychiatrists, diagnosis might not come but judgement of the belief, and concern about that individual's mental health would still exist (Westermeyer & Kroll, 1978).

Relatively little research has explored why the hearers of others' seemingly delusional belief claims judge them to be implausible, with it often just assumed that this is self-evident (Harper, 2014). Of the little research that exists, Lemert (1962, 1967) focused on the interactional context, observing that the typical response to paranoid belief claims is avoidance and what eventually leads to psychiatric intervention is not the content of the beliefs, but the persistence and insistence with which they are presented. Lemert (1967) suggested that an intervention becomes unavoidable when the individual takes extreme actions, such as by contacting legal authorities or government departments, or by accessing other formal complaints procedures. Once this stage is reached, the believer's social system can no longer ignore or deliberately misinterpret their beliefs and actions. Rogers & Pilgrim (2014) thus suggest that identifying deviance and doing something about it are separate processes, but as Lemert (1967) suggests, at some point the behaviour can no longer be ignored.

Similarly, other research suggests that beliefs may be considered less plausible when the behaviour of the individual begins to violate social norms (Cohen et al., 2016). Other research suggests that a belief may be questioned due to factors such as how the believer communicates their claims (McCabe et al., 2004), or not recognising that the hearer of their beliefs may perceive them as unusual and therefore not moderating how or how much they are discussed (Georgaca, 2004; McCabe, 2004). Looking at evidence in the courtroom, Bennett and Feldman (2014) suggest that regardless of the truth, judgements of plausibility are affected by how the story is told. This includes factors such as the frequency of ambiguities, the overall completeness of the story and the adequacy of story connections. The more ambiguities, the more variation there will be in how members of the audience interpret the story.

Furthermore, there is suggestion that judgements of plausibility are determined by the cultural assumptions and worldview of the hearer, as well as their readiness to make sense of an account (Bennett, 1997). Ingleby (1982) also suggested that whether the actions of another person are considered to make sense may depend on how 'charitably inclined' the hearer is towards the individual. The research thus suggests a range of acceptance for what is tolerated and numerous factors that may influence decision-making. It is also apparent that it is not just mental health professionals who make decisions



about the plausibility of others beliefs, and that these decisions occur within social contexts.

However, what is or is not tolerated, what combination of factors may make belief claims less persuasive and what eventually causes people to come into contact with services is still not well known. The extent to which the criteria outlined in the DSM-5 corresponds to the criteria used by the general population for judging the plausibility of beliefs is also unclear. It may be that the public place greater weight on certain criteria over others. Gaining a better understanding of this can help to understand who presents at mental health services, who does not and why. The author will next discuss some of the limitations that may occur when assessing the plausibility of belief claims of the individuals who do access services.

#### 2.4.2. The Diagnostic Interview

A belief is not fundamentally unusual but is considered to be so during an interaction with another (Heise, 1988). Within the psychiatric interview, the structure is such that one member of the interaction (the professional) has the socially legitimised power to define reality and thereby determine whether the beliefs of the other member (the service-user) are implausible. Dimensions of the belief, such as how preoccupied the individual is with the belief, and the distress and conviction with which it is held are assessed through an interaction with the professional and so cannot be conceptualised as just inherent, measurable qualities of an individual's belief (Boyle, 2002; Georgaca, 2000). From a social constructionist position, therefore, Heise (1988) argues that within the diagnostic interview, a belief becomes delusional when a mental health professional deems it so, and thus the professional's version of reality has been constructed to be truer than the speaker's (Heise, 1988). Heise (1988) thus suggests that the same belief could potentially be judged as delusional or non-delusional depending on the social conditions of the believer, as truth varies across social groups.

##### *2.4.2.1. Reliability, validity and a lack of conceptual consistency within the diagnostic interview*

The DSM-5 and thus the criteria for diagnosis on which the diagnostic interview is based has faced considerable scrutiny for issues of reliability,

validity, co-morbidity and heterogeneity (e.g., Bentall, 2004; Kirk & Kutchins, 1992; Kutchins & Kirk, 1999; Rogers & Pilgrim, 2003). A detailed discussion of this is beyond the scope of this thesis, but an increasing acknowledgment of the empirical and conceptual limitations of the existing ways of understanding delusional beliefs has called into question the existing process of identifying them (Boyle, 2002; David, 1999; Gipps & Fulford, 2004; Harper, 1996, 2004; Maher, 2001; Spitzer, 1990).

One of the basic problems with the diagnostic process is one of naïve realism and thus the assumption that beliefs are straight-forwardly empirically verifiable, whereby it is possible to verify the falsity of a person's belief. For example, within psychiatric and psychological practice, delusions are often treated as something that exist separately from the individuals making judgements and the individuals making belief claims (Fernando, 1997). Based on the rational and empiricist paradigms that inform modern science and thus the psychiatric literature (and diagnostic interview), there is an assumption that there exists an external reality. This reality can be perceived and understood through universal innate perceptual and cognitive mechanisms. Based on these assumptions, therefore, implausibility is thought to reflect difficulty with corresponding to this external reality (Gergen, 1985), which arises from bias or fault in an individual's innate mechanisms. The diagnostic interview thus rests on the premise that beliefs can be judged against an external reality and that these biased or faulty internal mechanisms can be analysed by scrutinising an individual's thought processes which can be clearly expressed through speech (Gillett, 1994; Harper, 1996).

Moreover, within the diagnostic interview, the onus is generally on the believer to present evidence to support their belief claims. However, most beliefs cannot be directly proven or investigated (Harper, 2011b), especially within the interview process. This means that most people are diagnosed as delusional without independent empirical investigation, except perhaps on occasion when there is discussion with family members (Georgaca, 2004), or when CBT practitioners design behavioural experiments to test delusional beliefs (Chadwick & Lowe, 1994). Nonetheless, most evidence suggests that mental health professionals rarely present counterevidence to the believer (Maher, 1992). This is despite researchers often reporting examples where

beliefs judged to be delusional have actually been true, or at least hold an element of truth (Barrett, 1988).

It has also been observed that when assessing the plausibility of beliefs, mental health professionals usually judge this on the basis of 'common-sense' (Maher, 1992). This is supported by evidence which suggests that diagnosers demonstrate significant flexibility in the criteria they use to interpret delusions (Harper, 1994, 1999; Rosenham, 1973). In a study examining how psychiatrists decide whether individuals have paranoid delusions, for example, Harper (1999) argued that professionals used rhetorical resources, rather than objective criteria. This was found to vary between patients, and was suggested to be influenced by factors such as their physical characteristics, social status, gender and emotional state. Diagnosing a delusion based more on individual judgement than empirical investigation would thus mean that different professionals may reach different conclusions, which poses a significant threat to the validity and reliability of the process. Zangrilli, Ducci, Bandinelli, Dooley, McCabe and Priebe (2014) also studied the first meeting between psychiatrists and inpatients who have seemingly delusional beliefs. They found that psychiatrists generally used three approaches to assess patients' delusions, which included eliciting the content of the beliefs, understanding the impact of the beliefs and questioning the beliefs validity, though the latter approach was used much less frequently.

Studies have also shown problems with reliability and validity when using standardised measures (based on the DSM-5 understanding of delusions). Bell, Halligan and Ellis (2006) reviewed the reliability of diagnosing delusions when using structured interview schedules and standardized instrument methods. Whilst they found an acceptable level of inter-rater reliability, this was only attained through the use of structured interviews. Such interviews are suggested to be much more reliable than the unstructured interviews that are most commonly used in everyday practice. Moreover, a subcategory of delusions ('bizarre delusions') showed poor reliability even with the structured interview, suggesting little clinical validity. A second study found low accuracy, reliability and validity of for certain diagnoses and secondary diagnoses when clinicians conducted unstructured clinical examinations in acute psychiatric wards (Zander, Wyder, Holtforth, Schnyder, Hepp & Stulz, 2018).

A further difficulty relates to the notion that the violation of epistemic irrationality is a key component of what makes a belief delusional, and yet not all instances of irrationality can be considered to be delusional (Sanati & Kyratsous, 2015). Moreover, the current understanding of delusions within the DSM-5 does not offer clear criteria for differentiating delusions from other false or unjustified beliefs which may satisfy the criteria of a delusion. These may include self-deceptive beliefs or pathologies involving cognitive impairments where beliefs deviate from reality (e.g., the beliefs of an individual with Capgras syndrome) (Bortolotti, 2018). However, the diagnostic interview process rests on the assumption that delusional beliefs can be easily demarcated from other types of belief (Sanati & Kyratsous, 2015).

Overall, this research suggests that there are significant challenges to the validity, reliability and conceptual consistency of the diagnostic criteria for delusions. Such difficulties have been suggested to reflect the contextually dependent and multidimensional nature of a delusion (Gilleen & David, 2005). It also potentially reflects a lack of homogeneity within the concept, and so most of the proposed criteria for delusions do not apply to all delusions. For example, a belief may be unfounded but not held with strong conviction, or implausible but shared by others (Freeman, 2006).

This has led some to propose that instead of trying to create a fixed definition of delusions, there are certain 'defining characteristics' (such as the conviction with which the belief is held and how preoccupying it is) by which delusions can be recognised. Oltmann (1998), for example, postulates that determining whether a belief is delusional may be best achieved by considering a series of characteristics, where none of them alone are sufficient, but increasing endorsement brings greater agreement. For example, if a belief is characterised by implausibility, resistance to change, is distressing or unfounded, not held by others, preoccupying and held with strong conviction, the more likely it is to be considered delusional. This fits with a dimensional view of delusions which suggests that delusions are not distinct entities but are multidimensional and complex. This suggests the need for diagnosticians to be flexible in the use and interpretation of the current criteria (Harper, 1994). The author will next consider how this process may also be influenced by cultural differences.

#### 2.4.2.2. Assessing delusions and culture

The increasing evidence which suggests that delusions are not concrete, measurable entities which exist separately from an individual and their context has led to an increasing awareness of the importance of context. This has been mirrored by the evolution of the DSM over time, which has demonstrated increasing consideration of the importance of cultural factors when assessing beliefs. Whilst the DSM-III made no mention of culture at all, the DSM-III-Revised briefly introduced the idea (Rogler, 1993), and the DSM-IV clearly stated that culture should be considered. The current APA (2013) definition of delusions in the DSM-5 asserts that a belief cannot be delusional if it is *“ordinarily accepted by other members of the individual’s culture or subculture (e.g., it is not an article of religious faith)”*. This definition thus encourages the consideration of culture during the assessment of delusions, and acknowledges religion as a subculture which should be exempt from pathology.

However, despite this attention to the cultural context of beliefs, this has not led to any significant change in how delusions are thought about in Western society. There is also little to answer the question of how to conceptualise culture when assessing beliefs. O’Connor and Vandenberg (2005), for example, argue that according to the DSM-5 definition, if a belief is thought to be cultural or religious, it is exempt from the criteria. Thus, even if one considers a belief to be delusional in content and form, and regardless of the consequences of holding such belief, it is not labelled as delusional if it is also held by other members of a culture or religion. This may cause uncertainty for mental health professionals who cannot know or understand the norms of all religions and cultures. Moreover, the context and situation-specific details of the belief is important. For example, some beliefs may be praised as mystical powers in one culture but perceived as a sign of madness in another, and so interpreted positively in one context but negatively in another (Rogers & Pilgrim, 2014). The details and understanding of all these contexts are unlikely to be accessible to all mental health professionals, thus highlighting the need for further clarification, exploration and research into this area (Boyle, 1997).

### 2.4.3 Implicit Biases within the Diagnostic Interview

#### *2.4.3.1. Social inequalities and implicit psychiatric norms*

In addition to not being aware of all of the contexts in which beliefs may have meaning or value, it has been argued that judgements about whether something is unusual or pathological may be obscured by implicit assumptions about those contexts and cultures. Some research suggests that social inequality, moderated by dominant social categories (e.g., gender, class, race and culture) may have two important effects on the diagnostic process.

Firstly, it has been argued that one's position within certain social categories may vary their experiences of distress. This may be seen through greater prevalence of specific diagnoses in certain social groups. For example, there are higher rates of disorders such as schizophrenia in BAME communities living in Western cultures (Fearon et al., 2006; Read & Dillon, 2013), and particularly high rates of psychotic diagnoses for young black men (Schwartz & Blankenship, 2014). Higher prevalence of disorders for BAME communities may thus potentially reflect experiences of discrimination and increased distress because of adversities amplified by social inequality (Parker, Georgaca, Harper, McLaughlin & Stowell-Smith, 1995).

Secondly, an individual's membership of these categories may affect how their distress is perceived, which may alter the way an observer understands their experiences and judges them (Mirowsky & Ross, 2003; Rogers & Pilgrim, 2003). Thus, how an individual's belief is understood and responded to may vary significantly, dependent on the social group of the believer and who is hearing the belief. Within mental health contexts, this may affect how professionals diagnose, treat and interact with service-users. Using discourse analysis to explore interviews with service-users who had been diagnosed as delusional, Georgaca (2000, 2004) argued that the hearer's assumptions about the world had an influential impact on the interview process. For example, for one interviewed patient, Georgaca (2004) suggested that 'however well Don argues his case in interactions within the ward, he cannot but argue it from the institutional position of a patient' (p. 22). Research thus suggests that although it is widely assumed that the diagnostic judgements of mental health professionals are based on universal implicit psychiatric and psychological norms, they are actually culturally-specific and gendered (Caplan & Cosgrove, 2004). Gaines (1995) referred to this cultural norm within

psychology and psychiatry as the 'universal standard', which constructs a reality where anything that differs from the Western Euro-American or European Protestant male is more likely to be seen as irrational.

Research also suggests that mental health professionals may be influenced by similar negative stereotypes about individuals diagnosed with schizophrenia as members of the general public (Nordt, Rossler & Lauber, 2006). Therefore, despite being professionally trained, those working within the healthcare system are also a sub-group of the general population, with their own cultures, biases and experiences which may influence how they evaluate and diagnose the beliefs of others (Coulter, 1973). This is a particular problem if one was to consider that when mental health professionals decide that another's belief claims are delusional, they are essentially making this decision on behalf of the rest of the population (Harper, 2011). If they were to differ from the general population in some way, the implicit standards against which the speaker of the belief are judged would differ from the overall population. Differences between mental health professionals and the general population have been observed, such as in the case of religious beliefs. In a survey by Delaney, Miller and Bisonó (2013), for example, psychologists were found to be significantly less religious than service-users, and so the implicit criteria of this group of professionals cannot be assumed to be representative of the general population. As research suggests that mental health professionals may be less religious than the general population (an issue coined the 'religiosity gap'), this may make them more prone to interpreting religious beliefs as pathological (Lukoff, Lu & Turner, 1992).

These two lines of argument thus suggests that judgements of plausibility are complex, relatively automatic and inextricably linked to social practices. One of the biggest potential dangers of the subjective and implicit nature of diagnosis is that the word of societal groups who lack power may be granted less credibility. When the hearer's prejudices about an individual's social identity causes them to deflate the level of credibility given to that persons' word, this has been suggested to reflect a specific type of injustice, termed 'testimonial injustice' (Fricker, 2007). Fricker (2007) argues that this form of injustice plays an important role in the everyday exchange of information, as hearers regularly and automatically use stereotypes as heuristics to make judgements more quickly. Testimonial injustice would be said to occur, for example, when the

account of someone from a different ethnic background to the hearer is seen to lack credibility, and so their testimony is disregarded or given less weight. Testimonial injustice was also seen in the study by Georgaca (2004), where the claims of an individual placed in the category of 'psychiatric patient' were not seen as persuasive to others.

Previous research has paid little attention to how the plausibility of one's belief claims may be given less credibility as a result of their membership of a social category. However, the research that does exist supports the idea that biased implicit norms may lead to less tolerance for beliefs that are not associated with socially dominant groups (e.g., white, middle class, Western, Christian men). O'Connor and Vandenberg (2005), for example, showed that mental health professionals judged the beliefs of members of the less familiar Islamic religion as pathological, but not members of the more familiar Mormon or Catholic religions. In a second study, they also found that psychology undergraduate students appeared to evaluate beliefs in terms of their familiarity and the level of similarity to their own beliefs (O'Connor & Vandenberg, 2010). This research thus suggests that beliefs that are implausible to some may be considered plausible to others if legitimised by a socially accepted category, such as a religion (Coulter, 1973). Loring and Powell (1988) further demonstrated the value of information about social categories using a vignette study to look at whether the sex and race of the psychiatrist and service-user affected diagnosis. They found that black men were the most severely pathologised, and were most likely to receive a diagnosis of paranoid schizophrenia. They also found that both black men and women were more likely to be diagnosed with paranoid personality disorder than white people. Psychiatrists were more likely to agree on the diagnosis when no information about the service-users' race or gender was available, and more likely to be correct when the race and sex were the same as their own.

Overall, therefore, this research suggests that the general public and mental health professionals hold biases that may affect how they evaluate the plausibility of another's beliefs. The injustice that people from certain social groups experience may not only mean that the plausibility of their beliefs is called into question, but that there may be less opportunity for them to explore and develop alternative ways of understanding their contexts. The everyday implications of these injustices, particularly in clinical settings, is concerning.



Mental health professionals have an ethical responsibility to fairly judge the plausibility of another's beliefs, especially when misdiagnosis can lead to detrimental consequences for the individual and their wider systems. Despite this, very little research has attended to the impact of social factors, beliefs and biases that may cause a hearer to question the plausibility of a speaker's account. The author thus aims to explore and better understand how people conceptualise, understand and judge the beliefs of others. To explore this, the author will focus specifically on conspiracy beliefs which will be discussed further in the following sections.

## **2.5. Conspiracy Beliefs**

The author chose to further examine conspiracy beliefs within this study because it has been suggested that people who make conspiratorial belief claims may serve as a general population, non-clinical analogy for individuals who hold 'delusional' beliefs (Dagnall, Parker, Denovan & Parton, 2015) and thus may share some features of the rarer kinds of unusual beliefs seen in mental health services. For example, research suggests that delusional beliefs and conspiracy beliefs are both held with conviction despite lacking supporting evidence (Corlett, 2015), and despite overwhelming contradictory evidence (Dagnall et al. 2015). Evidence also suggests that they share important cognitive characteristics, such as 'magical' thinking, fear of external agencies and persecutory (or paranoid) claims (e.g., Brotherton & Eser, 2015). Some also argue that both belief types reflect a distorted view of reality which may pose a threat to mainstream views and values (Kay, 2011), and are thus both a form of 'stigmatised knowledge' (Barkun, 2003).

Given the evidence to suggest the prevalence of conspiracy beliefs within everyday discourse (see section below), it is clear that members of the general population will be more familiar with and perhaps have first-hand experience of conspiracy beliefs. This should mean that they have a more concise understanding of what a conspiracy is which they may not have for the less familiar and concrete concept of 'delusional belief'. This would also hopefully mean that their input to the study would be less hypothetical and so more reliable. The author also hopes that by focussing on conspiracy beliefs, which are an unusual but non-psychiatric belief type, this will prevent

participants from confusing or associating how they judge plausibility with a particular diagnostic or disordered understanding of beliefs.

### 2.5.1. What is a Conspiracy Belief?

Many discussions about conspiracy beliefs begin with disagreements about how they are defined or understood and thus remains a point of controversy (Bjerg & Presskorn-Thygesen, 2017; Smallpage, 2018). Douglas et al., (2019), for example, argue that whilst the term “conspiracy” represents an accurate series of causal events, a “conspiracy theory” describes an accusation of conspiracy that may or may not be accurate.

Within the literature, a conspiracy theory is broadly understood as an attempt to make sense of the cause of an important social or political occurrence, or any circumstance which includes a secret collusion between two or more dominant actors (Aaronovitch, 2010; Dentith & Orr, 2017). Whilst typically considered to involve governments, conspiracy theories have also been shown to target any group considered to be powerful or malevolent (Douglas et al., 2019). There are thus many different types of conspiracy theories, including event conspiracies (e.g., concerning events such as 9/11 or the death of a public figure), technology conspiracies (e.g., relating to surveillance systems and artificial intelligence), conspiracies involving religion, occult and the paranormal (e.g., concerning aliens or conspiracies against Jewish people), and health conspiracies (e.g., the link between vaccination and autism, or the creation of AIDS) (Samory & Mitra, 2018). Despite such differences in content, Freeman and Bentall (2017) suggest that conspiracy theories share four underlying characteristics: 1) that an event or the world is not as it seems; 2) that something is covered-up by powerful others; 3) that the explanation of an event is only accepted by a minority; and 4) that the explanation is not supported by evidence.

Conversely, within the literature, a “conspiracy belief<sup>1</sup>” is sometimes suggested to describe a belief in a specific conspiracy theory or series of theories (Douglas et al., 2019). For example, approximately half of Americans do not believe that Lee Harvey Oswald acted independently when assassinating

---

<sup>1</sup> For consistency within this thesis, the author will use the term “conspiracy belief” rather than alternating between the other variants of this term. This variant has been selected deliberately as the aim of the research is to focus specifically on individual belief claims.

John F. Kennedy (Jensen, 2013), and prior to the UK's 2016 EU membership referendum, approximately 46% of individuals who intended to vote 'leave' believed that the votes would be fixed (Drochon, 2018). Based on the grounds of logic or scientific knowledge, research suggests that some of these beliefs can be considered to be theoretically plausible (e.g., accusations that secret services regularly breach privacy laws), whilst others are considered too "crazy" and thus highly implausible (e.g., flat-earth beliefs) (Sparkman, 2012). This is despite some conspiracy beliefs that were previously considered to be implausible were actually true (e.g., cases of corporate exploitation, Watergate) (Pipes, 1997).

Besides some confusion in definition, research also suggests that there may be a relatively stable predisposition towards "conspiracy thinking," or a "conspiratorial mind-set" (e.g., Brotherton, French, & Pickering, 2013; Uscinski & Parent, 2014). Despite differing widely in content, therefore, some research suggests that conspiracy beliefs may have similar and predictable psychological processes (van Prooijen & Douglas, 2018). This idea is generally derived from research which suggests that the best predictor of believing in a conspiracy is believing in another (Lewandowski, Oberauer & Gignac, 2013; Sutton & Douglas, 2014). This holds even if the beliefs are unrelated (Wood, Douglas, & Sutton, 2012) or if they are mutually incompatible (e.g., believing that Princess Diana was murdered, as well as believing that her death was staged) (Wood et al., 2012). This may suggest that the propensity to believe in conspiracies may be reinforced by beliefs that support conspiratorial thinking in general. This may include a belief in cover-ups (Wood et al., 2012), prejudice against unpopular dominant groups and suspicion around official accounts (Wood et al., 2012; Imhoff & Lamberty, 2018), or other intra-psychic cognitive biases and heuristics (e.g., Brotherton, 2015).

Finally, there is also some ambiguity over the term "conspiracy theorist" which is used both colloquially and within the research literature. To some, this term refers to an individual who has a strong belief in a specific conspiracy or a general propensity towards conspiracy thinking. It is also sometimes used to reference authors who write about or strongly advocate for certain conspiratorial beliefs (e.g., David Icke or David Irving).

It is thus important to clearly explain what is meant when referring to a "conspiracy belief" or other variants of this term, particularly as evidence

suggests that such terms receive very mixed receptions, with some attracted to them and others repelled by them (Wood, 2016). Due to their association with irrationality, it has also been argued that labelling someone as a conspiracy theorist or their belief as conspiratorial is a strategy used to disqualify their argument, delegitimize them or exclude them from public debate (Harambam & Aupers, 2017; Orr & Husting, 2018). It has, for example, been suggested that some politicians may accuse a critic of being conspiratorial to deflect criticism back onto them (Coady, 2006; Hall & Hewitt, 1970).

Such evidence thus suggests that the term conspiracy belief may be used as a stigmatising label to undermine and thus call into question the plausibility of another's belief claim. Moreover, the ambiguity around how a conspiracy belief is understood, the broad range of content, and the variance in the theoretical possibility of these beliefs being true suggests implications for how each hearer understands and responds to these belief claims. Moving on from trying to understand what a conspiracy belief may mean to different people, the author will now consider the prevalence and some of the underlying features behind conspiracy beliefs.

### 2.5.2. Prevalence and Socio-psychological Characteristics of Conspiracy Believers

Whilst conspiracy beliefs were historically considered to be pathological (Hofstadter, 1966), increasing evidence suggests that they are common (Oliver & Wood, 2014; Sunstein & Vermeule, 2009). In a 2011 survey of 1,935 individuals in the USA, Oliver and Wood (2014) found that almost the entire sample had heard of at least one conspiratorial belief, over 55% of people believed in at least one, and of those, only half endorsed just one. The prevalence and impact of conspiracy beliefs within society was further demonstrated when Donald Trump was elected as President of the USA despite promulgating an array of implausible conspiratorial beliefs claims during his campaign. His claims included that Barack Obama was not an American citizen and that climate change was a lie spread by the Chinese government (van Prooijen & Douglas, 2018). More recently than that, however, was the 2019 global pandemic of covid-19. A YouGov survey revealed that approximately 25% of those surveyed in the UK believed that covid-19 originated in a laboratory in China (Prescott-Smith, 2020), thus showing the prevalence of

conspiracy beliefs within everyday discourse.

Other general population surveys have also provided insight into which beliefs are commonplace and more acceptable than others. In a UK YouGov survey, Moore (2016) found widespread scepticism about elites, with 51% of respondents stating that they believe that despite the UK being a democracy, only a select few run the country. Moreover, 13% agreed with the more conspiratorial view that a secret group of powerful elites control world events like economic crises and wars. In another UK YouGov survey, Rogers de Waal (2015) found that conspiratorial beliefs about immigration (55%) and the EU (52%) were very common, though beliefs about aliens (14%), the 9/11 attacks (11%) and AIDS (8%) were much less common. This can be likened to research by Hallin (1986) who suggests that certain characteristics of everyday political discourse makes it more likely to fall into different spheres of social acceptability. For example, well accepted conspiracies (e.g., Watergate) can be considered within a 'sphere of consensus', whilst other narratives (e.g., debates between political parties) can be considered within the 'sphere of legitimate controversy'. Conversely, narratives that are seen as illegitimate or deviant, and which are ignored or ridiculed by others (e.g., beliefs from individuals like David Icke) are considered to be in the 'sphere of deviance'. Hallin (1986) also argues, however, that beliefs can move from one sphere of discourse to another, and so become more or less acceptable over time. For example, evidence suggests a brief spike in media interest in UFOs in the 1990s (Eghigian, 2017).

Research thus also suggests that conspiracy beliefs are sensitive to social context (van Prooijen & Douglas, 2018). For example, evidence suggests that people are more likely to favour conspiracy beliefs at times of crisis, such as floods, earthquakes, wars or societal change (Van Prooijen & Douglas, 2018). It has also been suggested that conspiratorial beliefs may reflect a symptom of systematic societal inequality. In a 2016 survey of the UK and five other European countries, Drochon (2017) found that countries which were considerably more democratic and equal (e.g., Sweden) reported up to four times less belief in conspiracies than countries considered to be more unequal and less democratic (e.g., Portugal). Moreover, research suggests that individuals who feel powerless are more prone to belief in conspiracies (Imhoff & Bruder, 2014), and so belief in conspiracies may be particularly high among

individuals who are marginalised within society (Davis, Wetherell & Henry, 2018).

This has been supported by studies which have investigated the intrapsychic factors associated with conspiratorial believers. For example, conspiracy believers have been associated with lower self-esteem and with holding more hostility towards authority (Swami et al., 2011). They have also been found to be more prevalent in less educated individuals or individuals of African American origin (Oliver & Wood, 2014). In a survey of US citizens, Freeman and Bentall (2017) found that individuals who were more prone to hold conspiracy beliefs were unmarried males, were less educated, with lower economic status and from BAME groups. They were more likely to have poorer psychological and physical health, higher rates of suicidal ideation and weaker social networks. They were also more likely to have experienced difficulties in their childhoods and a greater propensity to meet the criteria for a psychiatric disorder. The authors thus suggested that a propensity to see conspiracies behind life and world events was linked to a range of negative conditions, including adverse life experiences, unhappiness and isolation. They also suggested that most of the factors associated with conspiratorial beliefs were similar to those associated with paranoia. Given the research which links conspiratorial beliefs, lower incomes and lower levels of education (Uscinski & Parent, 2014), it has been suggested that certain unusual belief narratives might be adopted because of a lack of access to other explanatory narratives (Drochon, 2017; McKenzie, 2015; Rogers de Waal, 2015).

Overall, therefore, previous research has suggested a lack of clarity around how conspiracy beliefs are understood. The broad range in content of these beliefs and the ambiguity in how they are defined may have implications for how they are understood. Research also suggests that people have mixed reactions to conspiracy beliefs, with some having much greater tolerance than others. This was made especially apparent by events such as Donald Trump becoming president despite frequent propagation of conspiracy beliefs. Similar to those who have delusional beliefs, however, research suggests that conspiracy believers may also experience structural inequalities and may thus experience similar injustice as their beliefs are granted less credibility.

Despite this, very little research has explored why some conspiracy beliefs are persuasive and others are not, and what combination of factors

people hold in mind when determining how persuasive a belief is. Most research has focussed almost exclusively on the demographic, psychological and intra-psychic characteristics of conspiracy believers. The author thus suggests that it may be useful to begin by broadly exploring these areas in an attempt to gain an understanding of how people make sense of conspiracy beliefs, and then to try to determine which criteria they consider important for judging the plausibility of conspiracy beliefs.

## **2.6. Aims and Justification**

As suggested within this chapter very little research has paid attention to the specific processes and factors that influence people's decisions about what makes belief claims persuasive. Such judgements may have significant implications in numerous contexts, including legal and social, but of particular importance to this study is the decisions made in clinical contexts, where deeming that someone's belief claim is delusional may have significant ramifications. The overall aim of the current study, therefore, is to explore what influences a hearer when they are assessing the credibility of a speakers belief claims.

As discussed above, to make this more specific, the author has chosen to focus on conspiracy beliefs, which are a subset of 'unusual beliefs', with the intention of providing more insight into how people make judgements about delusional or unusual beliefs in general. These beliefs have been selected as research suggests that they serve as a general population, non-clinical analogy for delusional beliefs (e.g., Dagnall et al., 2015) and share some similarities with delusional beliefs (i.e., they are both held with conviction despite deficient supporting evidence or in the presence of contradictory evidence, and share numerous cognitive characteristics). The author also postulates that they are a type of belief that members of the general public will be more likely to be familiar with due to their prevalence within everyday discourse, meaning that the participants in this study may have a clearer conceptualisation of what a conspiracy belief is, making them better able and more willing to engage with this study.

The author also chose to recruit from the general population, as studies which just focus on subgroups rest on the assumption that there exists

qualitative differences between members of that group and the rest of the population which would make generalisation difficult. Whilst mental health professional training may differentiate professionals from the rest of the population to some extent, the author has previously described research that suggests that mental health professionals are influenced by the same biases, prejudices and range of experiences as the general public. Moreover, the general public regularly make decisions about the belief claims of others, and thus influences who will access mental health services and who will not, and as it is not yet clear which factors influence how they judge plausibility, it is important to explore this population. Focussing exclusively on specific subgroups within the population (e.g., mental health professional) would limit the claims that can be made about everyday judgements of plausibility. Overall, in addition to being significantly under-researched, the author proposes that this research is important for the following reasons:

- 1) Ethically, the subjugation of individuals who hold delusional or conspiratorial beliefs to epistemic injustice has serious implications as they are denied their right as a knower. Judging someone as 'delusional' exposes them to negative public attitudes (Angermeyer & Dietrich, 2006), and prejudice and stigmatisation (Rüsch, Angermeyer & Corrigan, 2005), which has implications for how they are treated within society (Thornicroft, Rose, Kassam, & Sartorius, 2007). Understanding how hearers of a belief make judgements about its plausibility may make it possible to explore ways of overcoming epistemic injustices (Crichton, Carel & Kidd, 2017).
- 2) Before this can be achieved, however, an overall problem which has clear clinical relevance relates to the uncertainty around how delusions are firstly understood, and then identified. As discussed above, the conceptualisations of both conspiratorial beliefs and delusions have been criticised for being subjective, ambiguous and open to influence by a wide variety of factors which remain unclear. The diagnostic definition of delusions focusses on factors such as falsity, preoccupation and conviction, but it would be helpful to understand what other factors influence this, and how people make judgments about unusual beliefs in general. Trying to understand the factors, or combination of factors, that inform how the general population (and thus perhaps mental health



professionals) make judgements about unusual beliefs would thus be important for addressing the significant inequalities within the healthcare system and for informing future research.

To attempt to shed light on this under-researched area, the author will use Q-methodology, which allows for an exploration of the diversity of available constructions on a specific topic but without prioritising any particular way of understanding (Stenner, Cooper & Skevington, 2003). Such an approach moves away from realist and essentialist understandings and so the author will adopt a social constructionist epistemological position. This fits with the aim of this study which is not to start from an *a priori* position, but to explore how sense and meaning have been made by experience, where constructions are “socially and historically contingent” (Eccleston, Williams, & Stainton Rogers, 1997). This also deviates from vignette studies which are more typical ways of researching delusional beliefs (e.g., Mojtabai & Nicholson, 1995; O’Connor & Vandenberg, 2005). Such studies are based on realist ideas and *a priori* assumptions about which factors are important (i.e., by systematically modifying predetermined important factors).

Since it might be hard to interpret how people are judging the plausibility of conspiratorial beliefs unless they have first considered what a conspiracy belief is, there will be two separate two Q-sorts. The first Q-sort will explore the participants’ general understandings of conspiracy theories, and so the first research question will be:

*“How do individuals identify certain beliefs to be conspiracy beliefs and the people who believe them to be conspiracy believers?”*

The second Q-sort will relate to the decision-making processes and the specific factors that influence an individuals’ judgement and so the second research question is:

*“What factors of a conspiratorial belief (i.e. a ‘conspiracy theory’) make it seem implausible to participants?”*

A detailed description of the methodology will be outlined in the next chapter.

## 3.0 METHODOLOGY

### 3.1 Chapter Introduction

In the previous chapter, the author discussed some of the conceptual issues associated with defining, understanding and then assessing delusional beliefs, as well as the lack of research focussing on which factors may influence how hearers make judgements about their plausibility. The author then discussed similar issues with the current understanding of conspiracy beliefs, which the author postulates are a non-clinical analogy to delusional beliefs and will be explored further within this study. Due to the lack of *a priori* assumptions about what this study may uncover, Q-methodology was considered to be an appropriate methodology. Further information about this methodology, as well as the rationale for choosing Q-methodology, will be given more consideration in the following sections. Prior to discussing this, however, it may be useful to reiterate the two research questions. Each research question will be analysed and discussed separately, and so the study will have two separate Q-sorts (a full glossary of Q-methodology terms can be found in Appendix A). The two research questions are as follows:

- 1. How do individuals identify certain beliefs to be conspiracy beliefs and the people who believe them to be conspiracy believers?*
- 2. What factors of a conspiratorial belief (i.e. a 'conspiracy theory') make it seem implausible to participants?*

### 3.2. Overview of Q-methodology and the Epistemological Position

As mentioned in the introduction chapter, studying the diversity of available constructions for how people judge the plausibility of belief claims requires an approach that moves away from realist and essentialist understandings. Such understandings would rest on the assumption that there is a universal standard for objectively judging the plausibility of belief claims. In contrast, the author will adopt a social constructionist position as the aim of this study is not to seek out one objective "truth", but to explore how sense and

meaning have been made by experience and are thus “socially and historically contingent” (Eccleston, Williams & Rogers, 1997).

Social constructionism is a theory of knowledge that observes the constructed understanding of the world and thus the basis of shared assumptions about reality. According to this perspective, the majority of human life exists in the form that it does due to social and interpersonal influences and centres on the notion that meanings are developed in coordination with others (Gergen, 1985). Hence, the prevalence of a particular view is not dependent on empirical legitimacy but on changes in social processes (Gergen, 1985). Social constructionism thus postulates that the way we understand the world is historically and culturally specific, and there is danger in prioritising one view as the ‘truth’ over another (Burr, 1995). Such an approach questions claims on ‘reality’ and ‘normality’ and can be used to explore how constructs are continuously evolving within a social context which actively shapes understandings of reality.

This particular epistemological stance lends itself easily to Q-methodology, which was developed as a scientific means of collecting multiple viewpoints on a specific topic (Stenner et al., 2003). The aim of Q-methodology is not to prove or disprove hypotheses but to acknowledge an extensive range of discourses, opinions and stories about a particular issue. Q-methodology thus involves the measure of subjectivity, with an overall aim of uncovering both different and collective understandings of a particular topic, and so can be used to explore ‘complex and socially contested concepts’ (Watts & Stenner, 2005). The author deemed Q-methodology to be a useful approach as it does not prioritise any one way of understanding a topic, and so allows each individual participant to offer their own perspective but also identifies clusters of participants who ranked the statements in a comparable way.

Within this approach, therefore, the data is considered in terms of each individual’s pattern of responses, and so an individual statement item only has significance when considered within the overall configuration of an individual’s responses. Once the Q-sort has been completed, the individual patterns of each participants’ responses are inter-correlated and then factor analysed (Watts & Stenner, 2005). This analysis generates a series of factors which participants may load onto, based on their configurations (Coogan & Herrington, 2011). This is in contrast to the R-technique which is concerned with the measure of traits

upon which individuals differ (Stainton Rogers, 1995), and so the participants are applied to the sample of statements, as opposed to the statements being applied to the sample of participants as in Q-methodology (Stephenson, 1953). In other words, the factors are people who respond similarly, rather than clusters of similar items.

This methodology (as well as the epistemological position of this study) will thus allow the author to examine the numerous available and diverse ways of understanding social reality within a culture, as well as the potential implications of these diverse constructions (Willig, 2008). It will also allow subjugated discourses to be brought to the fore, and will give voice to those silenced and marginalised by dominant knowledges. Nevertheless, the author is aware that the research process itself is also a product of its context, and thus no more exempt from distortions than any other social enterprise (Stainton Rogers, 1991). With this in mind, however, the author will now outline the rationale for choosing this methodology instead of other methodologies.

### **3.3. Rationale for Choosing Q-Methodology**

Q-methodology is an exploratory, mixed-methods approach which offers a clear and structured way to elicit participants' viewpoints on specific issues (Zabala, Sandbrook & Mukherjee, 2017). Besides fitting with a social constructionism position, the author describes three primary reasons for selecting Q-methodology for this study. Firstly, as a mixed-methods approach, Q-methodology merges the benefits of both quantitative and qualitative approaches. It is thus argued to have the same level of mathematical rigour as quantitative methodologies, as well as an interpretative component comparable to that of qualitative methodologies, and so provides numerical data to support the perspectives gathered (Saeed Bashatah, 2016). Q-methodology thus provides structure and form to the range of opinions gathered (Brown, 1986).

Secondly, Q-methodology synthesises multiple viewpoints into a manageable dataset by focussing on any differences and similarities between individuals, and how they relate to each other (Burke, 2015). Unlike other methods, it captures the collective opinions of a particular topic, while simultaneously identifying dissimilarities (Coogan & Herrington, 2011). Q-methodology differs from methods such as factor analysis which examines

similarities between questions or variables. It also differs from surveys, interviews or focus groups in that the participant is the response variable, not the participants' responses to a series of questions (McKeown & Thomas, 2013; Watts & Stenner, 2012). In comparison to surveys, Q-methodology is argued to yield more nuanced and sophisticated opinions (Kamal, Kocór & Grodzinska-Jurczak, 2014). Whilst surveys can offer a snapshot of how participants think about the different aspects of a particular issue, they are less able to provide an understanding of how participants think about that issue. It is also argued that Q-methodology has less freedom of interpretation than interviews and other qualitative analyses (i.e., discourse or thematic analysis) as perspectives in Q-methodology are restricted to the specific statements presented to participants and, to some extent, to the quantitative results (Zabala et al., 2017). Moreover, although qualitative approaches may provide an understanding of how participants think about a specific topic, they only offer qualitative data, making comparisons between perspectives difficult. Q-methodology thus provides a middle ground between the depth of interviews and the structure of surveys, as well as the advantages of both (Zabala et al., 2017).

Lastly, Q-methodology can be argued to alleviate certain response biases as participants are asked to explicitly engage with viewpoints that they may consider too inappropriate to voice or which may be unexpected (Zabala et al., 2017). Such an approach can thus be helpful for extracting perspectives without requiring participants to clearly articulate themselves. Many scholars also argue that this mixed-methods approach facilitates “the orderly measure of human subjectivity” and thus mitigates some of the effects of researcher bias (Brown, 1980; Ramlo, 2016). The author will now consider the design and implementation of the study using this methodology.

### **3.4. Study Design**

#### **3.4.1. Sampling the Concourse**

To conduct a Q-sort, one first has to obtain an appropriate set of statements from the concourse that surrounds the specific issue in question. Stephenson (1953) described the concourse as the exhaustive ‘full range’ of everyday discourse that exists around a particular topic and so there should be statements that participants can both agree and disagree with (Coogan &

Herington, 2011). The concourse should be gathered from numerous sources, including academic literature, interviews, novels, films and newspapers (Van Exel & De Graaf, 2005).

Within this study, all of these sources (as well as numerous internet forums) were thoroughly examined to extract a series of statements which fully captured the elements of the research questions. As there were two separate research questions in this study, the author developed two different concourses. The first concourse contained statements related to defining or understanding what a conspiracy belief was, whilst the second comprised statements that were suggested to potentially play a role in influencing how people make judgements about the plausibility of belief claims.

As is common practice within Q-methodology studies, the author also informally interviewed four members of the general public (recruited informally from colleagues and friends of the author) to add another layer of available information to the concourse. These individuals were first asked “what do you think a conspiracy belief is or how would you define it?” and were then asked “what makes a conspiracy belief more or less believable?” (see Appendix B for each concourse). The first resulting concourse thus reflected all available research findings, beliefs, opinions and ideas concerning how people understand what a conspiracy belief is, and the second included all available information about how individuals may determine the plausibility of beliefs. For each concourse, statements were divided into different themes to ensure that all important aspects of the topic were covered.

#### 3.4.2. Development of a Q-set

Once the concourse was adequately sampled, a reduced but representative selection of statements was narrowed down to form two separate Q-sets. Most Q-studies use between 30-80 statements within each Q-set (Stainton Rogers, 1995) and so the author ensured that each Q-set was within those parameters. The author also removed most of the statements that mentioned specific content or examples of particular conspiracy beliefs as these change over time and so agreement with an item may be influenced by the example given. Occasionally it was felt that a specific example was helpful to include (e.g., vaccinations). The author also tried to make sure that there was a

balance of positively and negatively phrased statements, and removed any repetitive statements.

It was also important to check that the statements actually answered the research question (Watts & Stenner, 2005). The research team (the primary researcher and research supervisor) reviewed statements from each theme of the concourse to check for this, and to refine the clarity and conciseness of the statements. Four members of the general population (separate to those earlier) were also asked to review the statements. This resulted in changes to the phrasing of some statements, the reversal of the proposition of some statements, and a few items being removed due to duplication.

Following several reviews, Q-set one had 34 statements remaining from the original 73 concourse items, which were grouped under 8 different themes. Q-set two had 37 statements from the original 63 concourse items, which were grouped under 5 separate themes (see Appendix C for both Q-sets). Once this had been established, a pilot study was conducted (with another sample of five members of the general public) to ensure that the final set was quick and easy for participants to sort (see Stainton Rogers, 1995, for details on this procedure). It also ensured that there was a roughly equal balance of items that could be agreed or disagreed with, and also allowed the author to check whether any key aspects were missing or with too few or too many items.

#### 3.4.3. Resources, Planning and Execution

The study was conducted online using a free programme called Q-sortware. Participants were sent the link to the study if they contacted the researcher (via e-mail) and expressed a wish to participate. By clicking on the link, all participants were presented with Q-set one first. For each Q-set, the sorting process was split into two parts. The aim of the first part of the sorting process was to help participants begin to think about their responses to the statements, and to categorise them in terms of how much they agreed or disagreed with them. In this part of the sorting process, therefore, participants were shown each statement individually on the centre of the screen, one at a time. Underneath the statement were three columns, labelled: 'I agree with this statement about conspiracy beliefs', 'neutral' and 'I disagree with this statement about conspiracy beliefs'. Participants were required to place (sort) each individual statement into one of these three columns.

Once each of the statements had been placed into one of the three columns, the participants clicked to move onto another screen and the second, more refined part of the sorting process began. In this section, participants were asked to make more fine-grained decisions about how much they agreed or disagreed with each statement, and had to be more selective in terms of what statements they agreed or disagreed with the most. On this screen, the three columns from the first part of the sorting process remained on the screen, with all of the statements that had been placed in to the columns, but they were also presented with another nine columns underneath. Of the nine columns, the furthest left column was again labelled 'I strongly disagree with this statement about conspiracy beliefs' and the furthest right was again labelled 'I strongly agree with this statement about conspiracy beliefs'. The centre column was again labelled 'neutral'.

The columns for this part of the study were formatted so that a fixed number of statements could be placed into each column. Six statements could be placed into the central (neutral) column, and this number decreased with each column moving out towards the two furthest end columns, such that only two statements could be placed into the final two columns. The programme would not allow more than the stated number of statements to be placed into the column.

To aid the statistical analyses, each of these columns were assigned a number, with the furthest right hand ('agree') column labelled +5, the one to the left of that +4, the one to the left of that +3, and so on, decreasing in ascending order until the middle (neutral) column, which was assigned a value of 0. The column pattern was symmetrical, so as the furthest right column was +5, the furthest left column was -5, and the number of statements that could be put into each column was also symmetrical, forming a quasi-normative distribution (see Figure One). A quasi-normal distribution means that the statements in the Q set are sorted according to how much the participant agrees or disagrees with them and a limited number of places for statements requires participants to decide which statements they agreed or disagreed with most strongly. The columns were labelled so that participants knew how many statements could go into each column.

For this stage of the Q sort, participants were first asked to consider all of the statements that they had put in the 'I agree with this statement about



conspiracy beliefs' column in the first stage of the sorting process. Of all of those statements, they were asked to select the two statements that they agreed with the most and then drag these two statements from the column that they were in, and place them in the farthest column of the new series of columns. They were then instructed to select the three statements that they next most agreed with and place them in the column directly left to the one they had just worked into. They were then asked to continue to work inwards until they had sorted all of the statements from the 'I agree with this statement about conspiracy beliefs' column from the first stage of the sort.

Participants were then asked to do the same for the 'I disagree with this statement about conspiracy beliefs' column; starting with the two statements they most disagreed with, and place these on the furthest left column. Once they had sorted all of the 'disagree' statements, participants were then asked to sort the statements that they had placed in the 'Neutral' column by moving them to either the central column or by working slightly outwards (dependent on how much space there was left in each column).

After the sorting process, the participants clicked onto the next screen and were given the opportunity to take a short break before moving onto the second Q set. For this Q set, the same process was followed as for the first Q set. However, the columns were labelled differently. The left hand column was labelled 'Makes me think that a conspiracy is less plausible', the middle was labelled 'Neutral', and the furthest right was labelled 'Makes me think that a conspiracy is more plausible'. The number of statements that fit into each column was also slightly different, but this was explained to the participants and again made clear at the top of each column (see Appendix D for a more detailed explanation of the method with visual supplements).



in an attempt to try and recruit people from different geographical locations and demographics. The author posted their email address and asked people to make contact if they were interested. Of the 88 pages contacted, 56 replied and agreed to post the advert (see Appendix E for the advert, the list of locations contacted and the locations that posted).

If someone made contact, the author sent them an email with an information sheet (see appendix F) and consent form (see appendix G). Once the consent form was returned, all participants were sent a detailed instruction sheet for the study which included screen-prints of the programme to illustrate how it worked (see appendix H). In total, 57 participants were recruited. The demographic information for these participants is presented in Table 1.

### **3.6. Ethical Considerations**

Prior to recruitment, ethical approval was obtained from the University of East London ethics committee (see appendix I). Before agreeing to participate in the study, all participants were sent the information sheet, and asked to read and return a signed informed consent form. The information sheet and consent form informed participants of the confidentiality policy of the study. Before starting the study, participants were also asked again to click on a button to agree that they were consenting to participate.

Confidentiality was maintained by assigning a code to each participant before analysing the data (which was removed from the online programme and stored on an excel sheet) in a password protected file, on a password protected computer. In accordance with the General Data Protection Regulations 2018, all data was stored where only the author had access. Participants names and email addresses (which was the only identifiable information obtained) were kept on a separate excel sheet and were stored in a separate password-protected file. This information was retained to ensure that participants could remove their data if they wanted to, and to disseminate the results of the study once they had been analysed.

The consent form also made participants aware that they could withdraw from the study at any time during completion, without any negative consequences and without having to provide an explanation. They were also informed that they could withdraw their data after participating, but that they had

a three week period to do so, as after that window, analysis may have commenced and data would thus be anonymised within the analysis.

Participants were also emailed a debrief form after participating (see appendix J), which was also displayed on the computer screen once participants had completed the programme. It was anticipated that the distress caused to participants by participating would be minimal as the study did not involve discussing anything of a personal nature. However, to mitigate any risk of participants becoming distressed, it was made clear both before and after participating that they could withdraw from the study at any time, without giving a reason and without repercussion. The debrief also provided the details of support lines that they could contact if needed (e.g., the Samaritans and Mind), and the details of who they could contact with any concerns at the University if they needed to.

Table 1

*Number (N) of participants within each demographic category within this study*

Category	Sub-Category	N
Age	18-25	7
	26-34	20
	35-45	10
	46-55	11
	56-65	7
	66-75	2
	75+	0
Ethnicity	White English/ Northern Irish/ Welsh/ Scottish/ British	43
	White Irish	0
	White Gypsy or Irish Traveller	0
	Any Other White Background	5
	White and Black Caribbean	1
	White and Black African	1
	White and Asian	0
	Any Other Mixed/ Multiple Ethnic Backgrounds	0

	Indian	2
	Pakistani	0
	Bangladeshi	2
	Chinese	0
	Any Other Asian Background	0
	Black African	3
	Black Caribbean	0
	Any Other Black/ African Caribbean Background	0
Religion	Christianity	20
	Islam	4
	Hinduism	1
	Sikhism	0
	Judaism	1
	Buddhism	0
	Other	2
	None	29
Gender	Male	32
	Female	25
Employment	Working (full- or part-time)	43
	At College or University	7
	In Training	0
	Unemployed	2
	On Long-Term Sick	0
	Retired	4
	Other	1
Education	Left School Before 16	2
	Secondary School Qualification	4
	College/ Sixth Form Qualification	11
	Diploma/ Vocational Qualification	7
	Undergraduate Degree	17
	Postgraduate Degree	15
	Other	1
Relationship	Single	16
	In a Relationship but not Living with Partner	7

	Living with Partner	11
	Married/ Civil Partnership	23
	Widowed	0
Occupation	Professionals (e.g., doctors, surgeons, solicitors)	17
	Jobs that Hold Responsibility (e.g., lecturers, local government, managerial position)	19
	Non-Manual Jobs (e.g., nurses, pharmacists, salesmen)	9
	Skilled Manual Workers/ Craftsmen	3
	Semi-Skilled and Unskilled Workers	8
	Lowest Levels of Subsistence (e.g., pensioners, casual workers)	1
Political Affiliation	Conservative	17
	Labour	14
	Liberal Democrat	11
	The Independent Group	2
	Green Party	2
	Democratic Unionists	0
	Plaid Cymru	2
	SNP	1
	Other	8

---

### 3.7. The Analysis Process

The Q-sorts of all 57 participants were analysed using PQMethod version 2.11 (Schmolck, 2002). A principal component analysis was conducted, followed by a varimax rotation which generated fourteen factors with eigenvalues over 1.0. Eigenvalues are the standard criterion for helping to decide how many factors should be extracted from a dataset and how many should be retained in the final solution. According to the Kaiser-Guttman criterion (Guttman, 1954; Kaiser, 1960, 1970), any factors with Eigenvalues over 1.0 are generally acceptable to extract and retain. As discussed in Watts and Stenner (2012), this criterion is generally accepted within the factor analytic community, though it is also widely acknowledged that it can result in an overly

large number of factors when datasets are large (Wilson & Cooper, 2008). It is also suggested that this method can lead to the extraction of meaningless or 'spurious factors', and so some maintain that eigenvalues themselves are meaningless in Q-studies (Brown, 1980).

In light of this, Watts and Stenner (2012) discussed other parameters which can aid this decision-making process. One criterion that they cited was Brown's (1980) equation for calculating significant factor loadings at the 0.01 level, and the suggestion that factors with two or more significant factor loadings after extraction should be retained. They also referenced Humphrey's rule, which posits that 'a factor is significant if the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error' and provided an equation to calculate this. They also suggested Humphrey's rule can be applied less stringently, where the cross-product of the two highest factor loadings just have to exceed the standard error.

Overall, however, Watts and Stenner (2012) conclude that this is an area of professional debate with no clear guidance. They argue that although eigenvalues, total variance and other objective criteria are helpful parameters for guidance, they must not be deployed systematically or without careful consideration of the meaning and significance of the factor in light of the research question. They suggest that deciding how many factors to extract and retain should account for as much of the variance as possible, but that as long as decisions are fully informed, they are defensible.

In light of Watts and Stenner's (2012) discussion, therefore, the author explored different objective criteria for each Q-sort separately, whilst keeping in mind each specific research question and the overall aim of eliciting a range of views on a specific topic. For each Q-sort, therefore, the author chose the parameter which provided the best balance of the following criteria:

- Generated a range of coherent factors
- The factors accounted for a large percentage of the variance
- A large number of participants loaded onto the factors (i.e., factors with very small numbers of participants loading were excluded)
- No factor only had one participant loading

### 3.7.1. Q-Sort One

For the first Q-sort, the author observed that Brown's (1980) equation best satisfied these criteria as it accounted for the highest level of variance, with the greatest sample of viewpoints. The employment of Brown's criteria involved calculating the number of significant factor loadings at the 0.01 level and was calculated using the following equation:

$$2.58 \times (1/\sqrt{\text{no. items in Q-sort}}) = 0.44$$

By checking the factor loadings listed in the PQMethod 'Unrotated factor matrix' output, any factors with two or more significant factor loadings ( $>0.44$ ) could legitimately be extracted and rotated (see Appendix K). Overall, five factors satisfied this criterion and were retained in the final solution. The other criterion did not fit as well, as they either had too few factors (and so did not represent some viewpoints that were seen in other factor solutions), did not account for enough of the variance, or had too many factors with very small numbers or just one participant loading. The other factor solutions that were analysed but did not form the final solution can be seen in Appendix L.

### 3.7.2. Q-Sort Two

For the second Q-sort, the author observed that applying Humphrey's equation less stringently best satisfied these criteria (the other factor solutions for the second Q-sort can be seen in Appendix M). Deploying the same criteria for both Q-sorts would have seen lower variance in one final solution, or factors with only one participant loading, or a final solution that did not best represent the available viewpoints on the given topic. The author thus observed that it was more sensible to employ slightly different objective criterion to inform each Q-sort.

A less stringent version of Humphrey's rule, which 'states that a factor is significant if the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error' can be applied by the cross-products simply exceeding the standard error (Watts & Stenner, 2012). The standard error is calculated by the following equation:

$$\text{Standard error} = 1 / (\sqrt{\text{no. of items in qset}}) = 0.164.$$



This thus required the author to examine the 'Unrotated factor matrix' (see Appendix N), extract the two highest loadings of each factor, ascertain if the cross-product of these two loadings exceeded the standard error, and if so, the factor was retained in the final dataset. Using this criteria as a guide, four factors were retained in the final dataset. Again, the other potential factor solutions either had too few factors (and so did not represent some of the viewpoints that were seen by using other criteria), did not account for enough of the variance, had too many factors with small numbers of participants, or factors with just one participant loading.

### 3.7.3 Interpreting the Data

Once the number of factors to retain had been decided, the next step in the process was to try and interpret the data. The author attempted this by initially considering all of the characteristic statements for each factor separately and looking for commonalities within those statements which led to the creation of small subthemes within each factor. The author then attempted to create a narrative around these subthemes and present various hypotheses for how they fit together. The author then considered the relationship between the different factors, and thus what themes are emphasised in one factor in comparison to the others. To achieve this, the author created a table which listed all of the statements and how they were ranked within each factor. The characteristic statements for each factor were highlighted, and the author noted which characteristic statements were shared with other factors (and whether they were agreed or disagreed with), and which statements were unique to that particular factor. Within the results section, the author then tried to incorporate some reflections on the areas of commonality and difference between the different factors.

## **4.0 RESULTS: HOW ARE CONSPIRACY BELIEFS DEFINED**

### **4.1. Chapter Introduction**

This thesis has two research questions which were addressed in two separate Q-sorts. Each of these Q-sorts have been analysed independently and presented in separate chapters for greater clarity. The research question addressed by the first Q-sort was: How do individuals identify certain beliefs to be conspiracy beliefs and the people who believe them to be conspiracy believers? The aim of this first Q-sort was to try to determine what participants considered to be the defining or most important factors for understanding conspiracy beliefs. Participants were presented with a series of statements related to how conspiracy beliefs may be understood within the media, literature, research and popular culture. Each participant then selected the statements that they considered were the most important aspects of deciding whether a belief is conspiratorial out of the possible options available to them.

The author will discuss each of the five factors of Q-sort one separately (the factor loadings for this Q-sort can be seen in appendix N). The factors have been presented in a way that tries to form a coherent narrative. When discussing each factor, the author will consider the characteristic statements and how they differ from statements in the other factors, the demographics of the sorters in each factor, and any qualitative comments from the sorters. The author notes that full analysis of these questions was not possible, however, due to numerous participants not writing anything into the space provided. Instead, the few quotes from participants who did answer those questions will be used to aid the interpretation of the factors. Before discussing this, however, the author has presented the average rating of each item by the sample as a whole to demonstrate the level of agreement between each item (see Table 2).

Table 2.

*Table showing the average rating of each item and standard deviation.*

Statement	Mean (SD)
Conspiracy believers spend a lot of time reading about conspiracies on the internet	1.35 (1.79)
Conspiracy beliefs assume that conspirators act in secret	0.81 (2.14)
Conspiracy beliefs can be fun and entertaining	0.26 (1.98)
People enjoy talking to conspiracy believers	0.02 (1.42)
Conspiracy beliefs are logical and rational	-0.89 (1.90)
Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)	-1.53 (2.04)
Conspiracy believers think that the media routinely expose conspiracy theories	0.40 (2.09)
Conspiracy believers distrust academic researchers and scientists	-1.39 (1.74)
Conspiracy believers think that all important information is being shared with the public	0.32 (1.90)
The conspirators in conspiracy beliefs are often powerful elites	-2.86 (1.14)
The conspirators in conspiracy beliefs are often governments or officials	1.09 (2.00)
The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)	0.86 (1.94)
Conspiracy beliefs take accepted facts but then make a big leap of faith to reach conclusions that aren't supported by the facts	-1.07 (1.67)
Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems	0.49 (2.32)
Conspiracy beliefs assume that conspirators manipulate events to serve their own interests	0.16 (1.65)
Conspiracy believers do not believe that there is an intentional plan behind world events	1.46 (1.58)
Conspiracy believers believe that they are the only ones who understand 'what is really going on'	-1.68 (1.61)
Conspiracy beliefs are so complex that it can be hard to definitively disprove them	1.53 (1.84)

Conspiracy believers think that all politicians and officials are corrupt	0.02 (1.89)
The conspirators in conspiracy beliefs do not typically involve intelligence agencies	-0.35 (1.64)
Conspiracy beliefs can have serious negative consequences, such as parents not vaccinating their children	-1.53 (1.38)
A lot of people believe in conspiracies	1.93 (1.85)
Conspiracy beliefs lead to some groups of society being treated badly	0.53 (1.92)
Conspiracy believers see those who disagree with them as hoodwinked or deluded	0.47 (1.57)
People use the term 'conspiracy theorist' as a way of undermining a view they disagree with	1.09 (1.83)
Conspiracy believers assume that there is only one explanation for an event when, in fact, there are a number of equally plausible explanations	0.44 (1.94)
Conspiracy believers think that there are no hidden connections or patterns behind world events	1.02 (1.72)
Conspiracy beliefs have caused a destructive level of mistrust in society	-1.84 (1.45)
Conspiracy believers interpret facts to fit their predetermined theory	0.39 (1.77)
Conspiracy beliefs are based on evidence, rather than innuendo and suspicion	1.65 (1.90)
Conspiracy believers reinforce each other's ideas	-1.53 (2.11)
Conspiracy beliefs prevent elites from gaining too much power	1.58 (1.56)
Conspiracy believers are happy to change their belief when they are presented with evidence which challenges it	-1.42 (1.38)
Conspiracy believers spend a lot of time reading about conspiracies on the internet	1.75 (1.92)

## 4.2. Interpretation of Factors

Table 3 demonstrates the eigenvalue and variance for each factor, both before and after rotation. After rotation, the five factors accounted for 63% of the total variance. The table also shows the participants who were exemplars for

each factor, which allowed the author to identify any characteristic demographics for each factor, and any qualitative comments from those participants.

Table 3.

*Eigenvalues and percentage of variance for each factor*

Factor	Eigenvalue	% of Variance before rotation	% of Variance after rotation	Number of Sorts (Ps) Loading
1	20.82	37	25	1, 2, 10, 14, 15, 19, 24, 25, 27, 30, 32, 34, 37, 38, 48, 49, 50, 53, 56
2	5.41	10	15	5, 7, 12, 13, 17, 18, 23, 40, 45, 46, 47
3	3.37	6	7	4, 6, 44, 55
4	3.01	5	10	11, 16, 22, 26, 42, 51
5	2.57	5	6	3, 21

Each of the statements included in Q-sort one, as well as the items which were rated highly (characteristic statements) for each factor are shown in Table 4.

Table 4.

*Table Highlighting the Characteristic Statements for Each Factor*

		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	Conspiracy believers spend a lot of time reading about conspiracies on the internet		+3	+3	+3	
2	Conspiracy beliefs assume that conspirators act in secret			-4	+4	
3	Conspiracy beliefs can be fun and entertaining			+4	+4	

---

4	People enjoy talking to conspiracy believers				+3	
6	Conspiracy beliefs are logical and rational	-4				
7	Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)		+4			-3
8	Conspiracy believers think that the media routinely expose conspiracy theories		-3			
9	Conspiracy believers distrust academic researchers and scientists					
10	Conspiracy believers think that all important information is being shared with the public	-3	-4	-3		-4
11	The conspirators in conspiracy beliefs are often powerful elites		+4			+3
12	The conspirators in conspiracy beliefs are often governments or officials		+3			
13	The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)			-3		-4
14	Conspiracy beliefs take accepted facts but then make a big leap of faith to reach conclusions that aren't supported by the facts	+3		-4		
15	Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems					+3
16	Conspiracy beliefs assume that conspirators manipulate events to serve their own interests					

---

17	Conspiracy believers do not believe that there is an intentional plan behind world events	-3	-4		
18	Conspiracy believers believe that they are the only ones who understand 'what is really going on'	+3			
19	Conspiracy beliefs are so complex that it can be hard to definitively disprove them			-4	
20	Conspiracy believers think that all politicians and officials are corrupt			+3	
21	The conspirators in conspiracy beliefs do not typically involve intelligence agencies	-3			
22	Conspiracy beliefs can have serious negative consequences, such as parents not vaccinating their children	+4	+4		
23	A lot of people believe in conspiracies		+3	+3	-3
24	Conspiracy beliefs lead to some groups of society being treated badly				
25	Conspiracy believers see those who disagree with them as hoodwinked or deluded				+4
26	People use the term 'conspiracy theorist' as a way of undermining a view they disagree with	+3	-3		
27	Conspiracy believers assume that there is only one explanation for an event when, in fact, there are a number of equally plausible explanations	+3			
28	Conspiracy believers think that there are no hidden connections or patterns behind world events	-3	-4	-3	

29	Conspiracy beliefs have caused a destructive level of mistrust in society			
30	Conspiracy believers interpret facts to fit their predetermined theory	+4		+4
31	Conspiracy beliefs are based on evidence, rather than innuendo and suspicion	-4	-3	
32	Conspiracy believers reinforce each other's ideas			+3
33	Conspiracy beliefs prevent elites from gaining too much power		-3	
34	Conspiracy believers are happy to change their belief when they are presented with evidence which challenges it	-3		-3

---

#### 4.2.1. Factor One – Conspiracy beliefs are False, Illogical and Harmful Beliefs

This factor was endorsed by nineteen Q-sorts and accounted for 25% of the variance.

##### *4.2.1.1. Characterising statements*

Participants loading onto this factor emphasise the serious and harmful consequences that conspiracy beliefs may have at a societal level (22: +4). They also suggest that conspiracy believers hold steadfastly onto their beliefs and these beliefs would not be revised even when presented with contradictory evidence (34: -3).<sup>2</sup> Sorters in this account also consider beliefs to be held rigidly and informed by a pre-determined set of beliefs or theory (30: +4), and so suggest that conspiracy believers will only consider one possible explanation for an event or occurrence (27: +3). Participants in this factor thus view the extent

---

<sup>2</sup> Within these analyses, negative ratings within exemplar factors have been analysed as simply the opposite to positive ratings. However this is not necessarily the only possible meaning of a negative rating. It is also important to keep in mind the potential influence of how items are phrased on how participants interpreted these items.



to which a believer interprets facts to fit their belief as an important defining feature. Participant 1 explained that “while scoring the statements I was thinking about specific people I know to be conspiracy believers and their unwillingness to listen to alternative explanations for the ‘evidence’ they have”. Those who load onto this factor also did not seem to consider conspiracy beliefs to be factual or rational (6: -4), and so suggest that believers do not base their arguments on a series of facts but involve large sweeping generalisations and conclusions (14: +3).

Those who load onto this factor also suggest that conspiracy beliefs are defined by information about hidden connections or patterns underlying world events (28: - 3). They suggest that conspiracy believers are naturally suspicious (31:-4), and believers do not feel that important information is shared with the general public (10: -3). They also understand conspiracy believers to consider themselves to be the only ones in society who really know what is going on (18: +3), and so there is a sense that conspiracy believers are a minority group who consider themselves to be more enlightened than the general public. Participant 14 also suggested that, “it would be important to reference the impact of traumatic events in their past” and so in defining something as conspiratorial, some participants may emphasise why people might make certain kinds of belief claims (e.g., as a way of coping with past adversity).

#### *4.2.1.2. Characteristics of the sorters*

The demographic details of the sorters who loaded onto this factor were analysed to check for any similar characteristics between them. It was found that the average age of the sorters was 45, with a large range from 28 to 69. Broadly similar numbers of men and women loaded onto this factor, with 11 women and 8 men. The highest level of educational attainment of the sorters was mixed, where six had qualifications up to postgraduate level, two left school before the age of 16 and the rest varied in between. The political belief system of the group was very varied, with little uniformity.

Conversely, the religious beliefs held by the group were roughly split between the Christian faith and being atheist, though one individual identified as Muslim, and one as Jewish. The relationship status was also mixed, though most were in relationships (to varying levels of commitment). Most of the sorters were White British (which was reflective of the overall sample within this study),

though two individuals were from other white backgrounds, one was mixed White and Black Caribbean, and another was mixed White and Black African.

#### *4.2.1.3. Factor summary*

This factor had the most participants loading and so it could be argued that this is a majority viewpoint. Overall, participants in this factor appeared to emphasise the importance of facts, evidence and logic for defining conspiracy beliefs. They also appear to orientate towards the harmful nature of conspiracy beliefs, and reject the idea that conspiracy beliefs were fun or entertaining. This did not appear to be moderated by the type or content of the beliefs. This was in contrast to all of the other factors which suggested that to some extent, conspiracy beliefs can be fun and entertaining.

Those in this factor also did not appear to understand conspiracy beliefs in terms of who the conspirators might be, or who the targets of the conspiracy beliefs are. However, they suggested that the believers of conspiracy beliefs are naturally suspicious, have very rigid and fixed belief systems, and believe that only they are privy to secret information which is not widely accessible to the general public. There is thus a sense that the sorters of this factor deem conspiracy believers to consider themselves different to others, and one person who endorsed this factor suggested that this may be related to previous autobiographical experience.

#### 4.2.2. Factor Two – What gets Labelled as a Conspiracy Belief are Attempts to Expose the Truth

This factor was endorsed by eleven Q-sorts and accounted for 15% of the variance.

##### *4.2.2.1. Characterising statements*

This factor only shared two characterising statements with factor one, implying that the aspects that were important to the sorters in factor one were not important to the sorters in this factor for defining conspiracy beliefs. In contrast to the previous factor, key aspects in this definition are the identity of conspirators, and the suggestion that the conspirators in conspiracy beliefs are generally powerful elites (11: +4), particularly government officials (12: +3) or from intelligence agencies (21: -3). Sorters in this factor also understand

conspiracy believers to see patterns or plans in historical forces, and thus suggest that believers see intentional, coordinated plans behind world events (17: -3), and hidden patterns behind real-life events (28: -4). Participant 13 expressed that “conspiracy beliefs tend to believe that events are caused by an identifiable group of people rather than something more abstract”.

For sorters in this factor, another key aspect of the definition is that there are potentially positive societal effects. They suggest that important information is routinely withheld from the general public (10: -4), that the media consistently hides conspiracy beliefs (8: -3), and thus conspiracy believers are crucial for exposing these real-life events (7: +4). They also feel that conspiracy believers spend a lot of time researching this information on the internet (1: +3). As suggested by Participant 7, “some world leaders hide the truth and treat people like idiots by feeding them lies”. Those in this factor thus suggest that conspiracy believers are vital for opening the eyes of a deceived world. This was echoed by Participant 23 who claimed that they prefer the term “truth seeker, or agenda researcher” to conspiracy believer, supporting the idea that ‘conspiracy belief’ is a derisive term used by the general public to undermine views they disagree with (26: +3).

#### *4.2.2.2. Characteristics of the sorters*

The demographic details of the sorters in this group were again analysed to check for similarities or disparities. The average age of the sorters in this group was 34, with a range of 26 to 48 and so slightly younger than in the previous factor. The occupation and educational attainment of the group was also varied, ranging from three having postgraduate qualifications to one leaving school before the age of 16. The political beliefs of the group also reflected a full range, though no individuals identified as having Conservative political beliefs, and two people cited “other”.

Conversely, the gender divide was disproportionate, with 9 men and only 2 women. Moreover, all of the sorters were employed full-time besides one student, and the majority of the group were White British, though two were from other White backgrounds, one was Indian, and another was Bangladeshi. Approximately half of the sorters were in relationships (to varying levels of commitment), though four were single. Approximately half also had no religious

beliefs, yet there was one who identified as Christian, two were Muslim, and one cited other.

#### *4.2.2.3. Factor summary*

This factor had the second most participants loading but shared very few of the same defining characteristics as factor one. Unlike in factor one, those in this factor placed particular emphasis on the identity of the conspirators (elites, government officials and those from intelligence agencies) and suggest that believers consider historical events to be orchestrated by groups of people, rather than random, abstract forces.

They also emphasised the potential positive and important effects of conspiracies, with the idea that conspiracy believers represent a check on the power of powerful individuals and thereby seek to delegitimise their authority. Unlike any of the other factors, there is thus an emphasis on the idea that conspiracy believers are important for enlightening the general public of real-life conspiracies, and that this information is routinely kept from them. There is also a sense that they see conspiracy believers to be “truth seekers”, and in contrast to the previous factor, they reject the notion that conspiracy believers are illogical or make evidence fit their pre-defined beliefs.

As sorters in this account appear to emphasise the importance of conspiracy believers and also suggest that the term ‘conspiracy believer’ is used to undermine views that people disagree with, it might be hypothesised that this group might not agree with the notion of conspiracy beliefs at all. At the very least, it might suggest that they define very different kinds of beliefs as conspiracy beliefs (compared to the other factors), or that they might view conspiracy beliefs as potentially true. Those in this factor might thus suggest that what gets labelled as a conspiracy belief is an attempt to expose the truth about the powerful.

The sorters in this factor also appear to be younger men, and arguably not representative of the overall population in the UK which is currently a predominantly Christian, Conservative country. This may relate to the literature which suggests that those who endorse conspiracy beliefs tend to be younger, males (e.g., Freeman & Bentall, 2017) who are marginalised within society (e.g., Davis et al., 2018).

#### 4.2.3. Factor Three – There are Different Kinds of Conspiracy Beliefs, with Different Consequences

This factor was endorsed by four Q-sorts and accounted for 7% of the total variance.

##### *4.2.3.1. Characterising statements*

Sorters in this factor emphasise the idea that conspiracy beliefs are not homogenous. This was one of only two factors to say that conspiracy beliefs are common (4: +3). They suggest that some conspiracy beliefs can have potentially serious, negative and harmful consequences at a societal level (22: +4), but that they can also be fun and entertaining (3: +4), with members of the general public enjoying engaging in discussions with believers (4: +3). Participant 44 explained that they “are inquisitive and find the subject interesting to consider”.

Participants in this factor also suggest that some conspiracy beliefs involve conspirators acting in the open (2: -4), and information is readily accessible on the internet which believers spend a lot of time engaging with (1: +3). Alternatively, they also feel that some conspiracy beliefs involve information being hidden and do not feel that all important information is shared with the general public (10: -3). This is reinforced by Participant 44 who suggested that “conspiracy believers question the official information the public have been given, such as moon landings”.

They also suggest that conspiracy beliefs may not be evidence-based (31: -3), implying that they lack scientific rigour, though they also suggest that conspiracy beliefs can be rational or logical and do not make big sweeping generalisations, or draw unsupported conclusions (14: -4). This appears to indicate that the sorters in this account acknowledge numerous different types of conspiratorial beliefs and effects, though they do suggest that conspiracy beliefs are more likely to involve people from religious groups (13: -3).

##### *4.2.3.2. Characteristics of the sorters*

The average age of the sorters in this group was 36 and ranged from 19 to 55. The occupation type of the participants was varied and each individual endorsed different political beliefs.

Three out of four group members had religious beliefs (two Christians and one Muslim). Similarly, three out of four of the group members were men, three of which identified as white (though one was not British), and another was Bangladeshi. Three were employed full-time besides one who was a student, and three were single, whilst one was married. The educational attainment was uniform, where the highest educational attainments of all four was a college qualification.

#### *4.2.3.3. Factor summary*

Overall, those who endorsed this factor seemed to hold the idea that conspiracy beliefs are not a rare, homogenous construct, but are common, with varied content and a diverse range of consequences. One interpretation of this is that they have different conspiracy beliefs in mind when rating different elements – so some conspiracy beliefs can be entertaining (and this is the only factor to claim that people enjoy talking to conspiracy believers), whilst others are more harmful. Some conspiracy beliefs involve conspirators acting in the open whereas others involve information being hidden and not shared with the public. Moreover, some conspiracy beliefs may be based on evidence, whilst others lack scientific-rigour.

The sorters in this factor were more likely to have religious beliefs, and was one of only two factors pointing to religious groups being the targets of conspiracy beliefs. It could be that this is something personally relevant to them or something they may be more sensitive to. The sorters in this factor were also more likely to be single men, with lower levels of educational attainment. Conspiracy beliefs are more common amongst these demographics (e.g., Freeman & Bentall, 2017; Uscinski & Parent, 2014) and so it may be possible that the sorters in this account are more likely to encounter a range of friends and co-workers who hold conspiracy beliefs.

#### 4.2.4. Factor Four – Conspiracy Beliefs involve Entertaining Beliefs about Elites Acting Conspiratorially but do not Prevent them from Gaining Power

This factor was endorsed by six Q-sorts and accounted for 10% of the variance.

#### *4.2.4.1. Characterising statements*

Similar to factor three, sorters in this factor appear to suggest that different elements characterise conspiracy beliefs. They also see conspiracy beliefs as common (23: +3), fun and entertaining (3: +4) and widely accessible on the internet (1: +3).

Moreover, sorters in this account do not emphasise the relationship with evidence but, instead, focus on common tropes. These include conspirators acting in secret (2: +4), information not being shared with the public (10: -4), and that world events are not spontaneous or due to chance but reflect hidden connections or patterns (28: -3), and are coordinated, pre-planned and intentional (17: -4). Participant 51 suggested that “the media has a big influence on the information being shared with the public”.

The only target that participants mention in this factor are elites (11: +3). This is the only factor to suggest that conspiracy beliefs do not prevent elites from gaining power (33: -3), so it appears that those in this factor do not see conspiracy beliefs as having societal purpose. They also differ from participants in factor two and do not agree that people use the term ‘conspiracy believer’ as a way of undermining a view that they do not agree with (26: -3).

#### *4.2.4.2. Characteristics of the sorters*

The average age of the sorters in this group was 31, ranging from 25 to 50. The group was half men and half women, and all were white British besides one who was Indian. All were employed full-time besides one who was a student, but their occupations were varied. The educational status and relationship status were also varied. Four out of the six identified as having religious beliefs (two Christian, one Hindu and one Muslim), though unlike in factor three, they did not suggest that religious groups were the targets of conspiracy beliefs. The political beliefs were all varied.

#### *4.2.4.3. Factor summary*

Overall, the sorters in this factor focussed on different elements when defining conspiracy beliefs. Similarly to factor three, they suggest that conspiracy beliefs are common and involve entertaining beliefs but in contrast to factor three, they do not see them as varied enough to include harmful beliefs. The sorters in this account also focus on more typical definitions of conspiracy beliefs and thus focus on themes of mistrust and power (i.e.,

conspirators act in secret, information is not routinely shared with the general public, and that there are plans and connections behind world events).

The only target that participants mention in this factor are elites (not government officials, intelligence agencies, religious groups or corrupt politicians). Unlike in factor Two, however, this factor focusses more on the target of the belief and does not emphasis any societal value (i.e., limiting the power of the elites). Moreover, participants in this account do not agree that the term 'conspiracy belief' is used to undermine an argument. In pointing to this as an important aspect, this implies that they think that 'conspiracy belief' is a legitimate label.

#### 4.2.5. Factor Five – Conspiracy Beliefs are Unsophisticated Beliefs about Religious Groups and Politicians Held by a Self-Reinforcing Minority

This factor was endorsed by two Q-sorts and accounted for 6% of the variance.

##### *4.2.5.1. Characterising statements*

The two participants in this factor suggest that conspiracy beliefs relate to the idea that events happen because of the planned actions of small groups, as opposed to broader forces like economic or political systems (15: +3). They suggest that the targets of conspiracy beliefs are individuals from religious minorities (13: -4), as well as politicians or officials (20: +3).

Those in this factor see conspiracy beliefs as held by a small number of people (23: -3), who believe that they are enlightened, whilst non-believers are naïve or deluded (25: +4). Similarly to those in factor one, they suggest that conspiracy believers are wedded to their beliefs and so will not revise them despite being presented with challenging evidence (34: -3). They also suggest that conspiracy believers are reductive and will only consider one explanation or pre-determined belief for an event (30: +4).

Unlike participants in any of the other factors, however, those in this factor suggest that conspiracy believers reinforce each other's ideas (32: +3) but suggest that conspiracy beliefs are easy to disprove (19: -4). Sorters in this factor disagree with those in factor two, as they suggest that conspiracy believers have minimal impact on society, and thus do not believe that conspiracy beliefs help to expose real conspiracies (7: -3).



#### *4.2.5.2. Characteristics of the sorters*

There were only two sorters in this account who were both young (22 and 25 years old) but different genders. They were both white British, worked full-time in highly responsible jobs, lived with their partners and voted Labour. One was qualified to undergraduate degree level and the other had attained college qualifications. One held no religious beliefs, whilst the other identified as Christian.

#### *4.2.5.3. Factor summary*

Since there were only two participants in this factor, the author was slightly circumspect when interpreting this factor. This factor had the highest number of unique characterising statements (though this may have reflected the small number of participants). Sorters in this factor disagree with factor two that conspiracy beliefs help expose real conspiracies and unlike factor one they do not focus on the issue of harm or many of the issues of logic or evidence. However, they do not consider conspiracy beliefs to be fun and entertaining.

Instead, this factor tends to attend more to the dynamics of the belief and the kind of relationship conspiracy believers have with their beliefs. This is the only factor to suggest that conspiracy believers reinforce each other's ideas and that they see those who disagree with them as hoodwinked or deluded. Like those in factor one they also disagree that conspiracy believers will change their belief when presented with contradictory evidence and agree that conspiracy believers interpret facts to fit their predetermined theories.

Those in this factor also consider the targets of conspiracy beliefs to be religious groups and corrupt politicians but not intelligence agencies or elites. They were the only factor to suggest that targets may be politicians. They also uniquely endorsed the idea that conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems. They also suggest that conspiracy beliefs are held by a small number of people with relatively simple beliefs which are easy to disprove, which implies they think that conspiracy believers adopt an unsophisticated view of events.

### **4.3. Chapter Summary**

Overall, the five factors extracted by analysing the first Q-sort demonstrated numerous different ways of understanding conspiracy beliefs. The factors varied greatly, ranging from conspiracy beliefs being innocuous and fun, to having serious and harmful consequences. The implications of this variation in understanding will be explored in chapter six.

## 5.0 RESULTS: HOW DO PEOPLE JUDGE THE PLAUSIBILITY OF CONSPIRACY THEORIES

### 5.1. Chapter Introduction

This chapter will address the second research question, which was: “What factors of a conspiratorial belief (i.e. a ‘conspiracy theory’) make it seem implausible to participants?” The aim of this Q-sort was to explore which factors impacted how participants’ judge the plausibility of belief claims. Participants were presented with a series of statements (obtained from the media, research, literature and popular culture) about factors which may influence how credible they consider a belief to be. Each participant then individually selected from these statements which factors they considered to be the most and least important for influencing their judgements of plausibility.

The author has presented the average rating each item and the standard deviation to demonstrate the level of agreement between each item (see Table 5).

Table 5.

*Table showing the frequency with which each item was agreed with.*

Statement	Mean (SD)
When a majority of academic researchers and scientists endorse the belief	3.04 (1.58)
When the believer is very sociable and has lots of friends	-0.19 (0.93)
When the belief appears to be hypothetically possible	1.74 (1.28)
When the believer is highly educated	1.18 (1.15)
When the evidence for and against the belief is confusing	-1.07 (1.74)
When the believer seems indiscriminately suspicious	-1.61 (1.50)
When the believer is from a different social group (cultural, ethnic, religious, political etc.) to you	-0.11 (0.98)
When the belief seems to involve jumping to a particular conclusion not supported by the evidence	-2.89 (1.36)
When most people you know don’t believe it	-0.54 (0.95)

---

When the belief pins the blame for something on an identifiable group of people rather than something more abstract	-0.21 (1.48)
When the conspiracy would have required lots of different people to co-operate	-0.14 (1.94)
When someone you think is credible believes it	1.54 (1.13)
When the belief is based on several different independent sources of evidence	2.95 (1.39)
When the believer will change their mind in light of evidence which contradicts the belief	0.09 (2.06)
When the believer seems to spend a lot of time on conspiracy websites	-1.02 (1.27)
When official sources (e.g. government reports) do not support it	-0.07 (1.45)
When the believer does not seem gullible or naïve	1.05 (0.95)
When the belief is presented in an incoherent and hard to follow manner	1.54 (1.57)
When the belief is supported by a whistleblower who has had access to secret information	2.14 (1.27)
When the believer only seems to talk to people who agree with them	-1.56 (1.13)
When experts seem to disagree about the belief	-1.21 (1.82)
When the believer is not obsessed by the belief	0.63 (1.08)
When the belief seems to be the simplest explanation of the evidence	1.04 (1.58)
When the believer can provide persuasive evidence for it	2.51 (1.14)
When the believer seems eccentric or odd	-0.91 (0.97)
When the believer seems to be open-minded about alternative explanations when they weigh up the evidence	2.18 (1.40)
When the conclusions reached seem to go beyond the evidence	-0.84 (2.02)
When you are aware of strong evidence which contradicts the belief	3.04 (1.38)
When the belief fits with my own political views	0.49 (1.04)
When the believer appears to have mental health difficulties	-1.04 (1.13)
When the belief seems to be based on opinion rather than fact	-2.44 (1.21)
When the argument for a belief seems circular	-0.98 (1.66)
When the belief doesn't involve making too many assumptions	1.60 (1.49)
When the belief just seems intuitively right	1.44 (1.32)
When the believer does not get overly emotional about the belief	0.65 (1.33)

---

When the believer only cites evidence which supports their belief and does not mention anything which might contradict it	-1.70 (1.69)
When the belief seems to be unquestioned within the believer's social group	0.95 (1.29)

## 5.2. Interpreting Factors

Table 6 displays the eigenvalues and total variance for the four factors, both before and after rotation. After rotation, the factors accounted for 70% of the total variance. The table also shows the participants who were exemplars for each factor, which allowed the author to identify characteristic demographics for each factor, and any qualitative comments from those participants.

Table 6.

Eigenvalues and total variance for the four extracted factors

Factor	Eigenvalue	% of variance before Rotation	% of variance after Rotation	Number of Sorts (Ps) Loading
1	33.1943	58.24	26	1, 8, 9, 11, 17, 22, 23, 31, 36, 38, 39, 41, 47, 48, 50, 54, 55
2	2.5487	4.47	14	5, 13, 15, 29, 37
3	2.1273	3.73	20	7, 10, 12, 16, 18, 20, 24, 40, 44, 46, 53, 56
4	1.9077	3.35	10	3, 26, 27

Each of the four factors will be discussed in turn, with consideration of how they relate to each other. The factor loadings for all four factors can be found in Appendix P and table 7 for statements in Q-sort two, as well as the most highly ranked statement for each factor (characteristic statements).

Table 7.

Table Highlighting the Characteristic Statements for Each Factor of Q-sort Two

		Factor 1	Factor 2	Factor 3	Factor 4
1	When a majority of academic researchers and scientists endorse the belief	+4	+3	+3	+4
2	When the believer is very sociable and has lots of friends				
3	When the belief appears to be hypothetically possible		+4		
4	When the believer is highly educated				
5	When the evidence for and against the belief is confusing		-3		
6	When the believer seems indiscriminately suspicious		-4		
7	When the believer is from a different social group (cultural, ethnic, religious, political etc.) to you				
8	When the belief seems to involve jumping to a particular conclusion not supported by the evidence	-3	-4	-4	
9	When most people you know don't believe it				
10	When the belief pins the blame for something on an identifiable group of people rather than something more abstract				
11	When the conspiracy would have required lots of different people to co-operate				+3
12	When someone you think is credible believes it	+3			
13	When the belief is based on several different independent sources of evidence	+4		+4	

---

14	When the believer will change their mind in light of evidence which contradicts the belief			
15	When the believer seems to spend a lot of time on conspiracy websites			
16	When official sources (e.g. government reports) do not support it			
17	When the believer does not seem gullible or naïve			+3
18	When the belief is presented in an incoherent and hard to follow manner	-3		-3
19	When the belief is supported by a whistleblower who has had access to secret information	+3	+4	
20	When the believer only seems to talk to people who agree with them		-3	
21	When experts seem to disagree about the belief		-3	-3
22	When the believer is not obsessed by the belief			
23	When the belief seems to be the simplest explanation of the evidence			
24	When the believer can provide persuasive evidence for it	+3	+3	
25	When the believer seems eccentric or odd			
26	When the believer seems to be open-minded about alternative explanations when they weigh up the evidence	+3	+3	+4
27	When the conclusions reached seem to go beyond the evidence	-3		
28	When you are aware of strong evidence which contradicts the belief	-4	-3	-4
29	When the belief fits with my own political views			
30	When the believer appears to have mental health difficulties			

---

---

31	When the belief seems to be based on opinion rather than fact	-4	-3	-3
32	When the argument for a belief seems circular			-4
33	When the belief doesn't involve making too many assumptions			+3
34	When the belief just seems intuitively right	+4		
35	When the believer does not get overly emotional about the belief	+3		
36	When the believer only cites evidence which supports their belief and does not mention anything which might contradict it		-3	
37	When the belief seems to be unquestioned within the believer's social group			-4

---

#### 5.2.1. Factor One – A Beliefs Plausibility is Judged through Evidence, Consensus and Credibility

This factor was endorsed by seventeen Q-sorts and accounted for 26% of the variance.

##### *5.2.1.1. Characteristic statements*

Participants loading onto this factor emphasise the importance of evidence, facts and logic when determining the plausibility of conspiracy beliefs. They suggest that a belief is much more plausible when it is based on several independent sources of evidence (13: +4<sup>3</sup>), and in the absence of evidence that contradicts the belief (28: -4).

They also seem to consider beliefs to be less plausible when the conclusions drawn do not logically fit the evidence (27: -3), or when it involves jumping to conclusions (8: -3). They also appear to find a belief less believable when it is not presented in a coherent or logical manner (18: -3), when the

---

<sup>3</sup> In this factor, positively ranked items meant that participants considered them to be more plausible, and negatively ranked items were less plausible



believer does not provide persuasive evidence for the belief (24: +3) and when it seems to be based on opinion rather than fact (31: -4). There thus appears to be an emphasis on how the believer presents the belief.

There is also a sense that participants in this factor find a belief particularly believable when it is endorsed by someone that they consider to be credible (12: +3), particularly academics and scientists (1: +4). However, it also appears that they find information that has been exposed by a whistle-blower who has access to secret information as more credible (19: +3). As suggested by Participant 54, their perception of whether a belief is credible is somewhat “determined from where the information originates”.

#### *5.2.1.2. Characteristics of the sorters*

The demographic details of the sorters in this factor were analysed to check for any similarities between them. It was found that the average age of the group was 40.1, ranging from 25 to 65. Of the seventeen participants, 5 were women and 12 were men. The majority of participants were White British besides one who was Indian, and one who was White but not British. The majority were in full-time employment, though two were students, and two were retired. All were in relationships to varying levels of commitment (nine were married), except three who were single.

The educational status of the participants was more varied, with seven having postgraduate qualifications to one being educated up until secondary school. The type of occupation was also varied, ranging from seven professionals to one semi-skilled worker. The identified religious beliefs were also more diverse, with four identifying as Christians, one as Muslim, one as Jewish, over half (ten) having no religious faith and one selected “other”. The political beliefs of the participants was also varied with little consensus.

#### *5.2.1.3. Factor summary*

This was the most widely endorsed factor. Overall, sorters in this factor emphasise the strength of evidence, consensus and credibility as important factors when judging the plausibility of a belief, and placed no importance on the characteristics of believers. For the sorters in this factor, there was thus a particular focus on how scientific, evidence-based and logical the belief is, and

the suggestion that beliefs are more plausible when there is consensus from several different sources of evidence.

Unlike any of the other factors, participants in this factor also suggest that a belief is more plausible when endorsed by someone they consider to be credible. One suggestion for this was when it was endorsed by academics and scientists. They also find information exposed by a whistle-blower who has access to secret information as more credible, suggesting that they may mistrust official streams of information. It thus appears that the source of the information (though they do not emphasise information from the government or their social groups) is important to sorters in this group. It also seems that the credibility of a belief may be somewhat determined by how the argument is structured, how factual it is, and how coherently or logically the believer can present the argument.

#### 5.2.2. Factor Two – The Plausibility of a Belief Involves Judgements of the Evidence and the Credibility of the Believer

This factor was endorsed by five Q-sorts and accounted for 14% of the variance.

##### *5.2.2.1. Characteristic statements*

Participants in this factor appear to emphasise the importance of both evidence and intuition when determining the plausibility of a belief. It appears that they consider a belief to be more credible when it feels intuitively right (34: +4), or when it can be hypothetically possible (3: +4).

However, they also seem to value evidence and suggest that a belief is more plausible when the majority of academic or scientists also endorse the belief (1: +3). They also seem to consider a belief to be less plausible when the evidence is confusing (5: -3) or contradictory (28: -3), when experts disagree on the evidence (21: -3), and when conclusions drawn are not supported by the evidence (8: -4).

It also appears that participants in this factor consider a belief to be less plausible when the believer is indiscriminately suspicious (6: -4), or when the believer becomes very emotional about the belief (35: 3). They suggest that a belief is more plausible when a believer is open-minded and will consider alternative evidence (26: +3). This is supported by Participant 13 who stated that “I feel that my judgement is influenced by the personality of the person who

believes in the conspiracy theory, e.g., if they are introverted or social etc.”. Participant 15 made similar claims, stating that they “may judge a statement as less plausible if the believer has mental health difficulties”. Such statements appear to suggest that sorters in this factor are influenced by certain characteristics of the believer and how they interact with the belief.

#### *5.2.2.2. Participant characteristics*

The average age of the sorters in this factor was 36.2 and ranged from 27 to 48, so a marginally younger demographic than in the previous factor. The gender divide was approximately equal, with three women and two men. Four were employed full-time and one was unemployed. Of those employed, they were either professionals, held responsible or non-manual jobs. All sorters were in relationships, and all of them lived with their partners or were married. Within this factor, two sorters were White British, one was Bangladeshi, one was White and Black Caribbean, and one was Black African, and so the group was more ethnically diverse than the other factors. The educational attainment was also mixed, though all had qualifications post-school. In terms of religious beliefs, two of the sorters identified as atheist, one as Christian and two as Muslim. For political beliefs, three held Conservative beliefs, one was Green Party and the other cited other.

#### *5.2.2.3. Factor summary*

Overall, participants in this factor emphasise evidence, intuition and certain characteristics of the believer when evaluating the plausibility of a belief. It appears that the sorters in this factor would consider a belief to be less plausible if the evidence supporting the belief was illogical, inconsistent or confusing. Similar to participants in factor one, they also consider a belief to be less plausible when academic or scientific experts do not agree, suggesting that they place importance on consensus between relevant experts. However, unlike any of the other factors, the sorters judgements also seemed to be influenced by what feels intuitively right, or if something is common-sense, imaginable or possible. This emphasis on intuition and whether a belief is hypothetically possibly may relate to the importance placed on consensus. If there is not consensus and thus experts disagree, or the evidence is confusing,

they may instead judge the plausibility of a belief on whether it is hypothetically possibly and intuitive.

However, like the sorters in factor three, judgements of plausibility also appear to be influenced by certain characteristics of the believer. Sorters in this factor suggest that beliefs seem less credible when the believer is suspicious, overly emotional about the belief or is rigidly attached to the belief. Of these three characteristics, two of them may give one reason to doubt the rationality or motives of the believer. If they were indiscriminately suspicious or overly emotional then one may think that their beliefs are not based on evidence. As the two quotes suggest, they might instead imply something to do with the personality or mental health of the believer. This may also be why they suggest intuition is important, as they are making implicit judgements about the believer as well as the belief. Interestingly, however, sorters in this factor did not rate the statements specifically about mental health or eccentricity highly, possibly because they felt them to be too judgemental.

### 5.2.3. Factor Three – Judgements of Plausibility are Influenced by Evidence, Credibility and Consensus, but also Characteristics of the Believer

This factor was endorsed by twelve Q-sorts and accounted for 20% of the variance.

#### *5.2.3.1. Characteristic Statements*

Similar to the previous two factors, the participants that load onto this factor emphasise the importance of information and evidence. They suggest that a belief is more plausible when there are several independent sources of evidence (13: +4), and when the participant is not aware of any convincing evidence that contradicts the belief (28: -4). They suggest that a belief is less plausible when the conclusions drawn are not supported by evidence (8: -4) and when it is based on opinion and not fact (31: -3).

Similar to factor one, participants in this factor suggest that a belief needs to be endorsed by the majority of academic researchers and scientists (1: +3). They also suggest that it is more plausible when the information comes from a whistle-blower and so when the information is not readily available to the general public (19: +4). This was supported by Participant 7, who claimed that they “trust whistle-blowers who expose secret information as some world

leaders and the media hide the truth and take people for idiots by feeding them lies". Participant 53 also suggested that "the power of the media and what they do not say has a big impact on beliefs".

The participants in this factor also suggest that the believer's relationship with their beliefs can have an impact on their judgements of plausibility. They suggest that they consider a belief to be less plausible when the believer only talks to those who agree with them (20: -3), or when the believer only cites evidence that supports the belief and does not consider anything that contradicts it (36: -3). Conversely, they suggest that a belief seems more plausible when the believer is open-minded and objectively appraises the evidence (26: +3), and if they can provide persuasive evidence for their belief (24: +3).

#### *5.2.3.2. Characteristics of the sorters*

The average age of the sorters in this factor was 39.9, and ranged from 27 to 61. Of the twelve participants, 8 were men. All of the participants were White, though three were from countries besides Britain. All of the participants were employed full-time besides one who was retired.

The highest level of educational attainment for the sorters was varied, ranging from postgraduate degree to secondary school qualification, as did the occupation of the sorters. The relationship status was also varied, though most were in a relationship and only three were single. Approximately half of the sorters (five) identified as atheist. Six identified as Christian, and one selected "other".

The political beliefs of the sorters was also very varied. Three were Conservatives, three were Labour supporters, one was Liberal Democrats, two were Green party supporters, and three selected "other", suggesting that a quarter of the group did not have mainstream political beliefs.

#### *5.2.3.3. Factor summary*

This factor had the second highest number of participants. Similar to the sorters in factor one and two, the participants in this factor emphasise the strength of evidence for influencing their judgements of plausibility, and also like factor one, they valued consensus and evidence derived from numerous sources. They also emphasise the structure of the argument and consider a

belief to be more plausible when it does not involve sweeping conclusions or opinions.

Like all of the other factors, participants in this factor consider a belief to be more plausible when it is supported by academic researchers and scientists and like factor one, they suggest that evidence is more credible when it originates from a whistle-blower. Whistle-blowers may be more credible because they have access to hidden information, or revelatory evidence, and take risks to expose that information. Whistle-blowers can thus provide new and striking evidence but here, as the quotes illustrate, they can also provide evidence that is not readily available such as by the media or politicians. One hypothesis for this is that they do not consider the media or world leaders to be trustable, and so hidden information has more value. It may be that participants in this factor focus on how powerful groups might propound self-interested narratives and conspiracy beliefs expose this hidden information.

Similar to factor two, the sorters in this factor also emphasise the influence of the believer when making judgements of plausibility. In this factor, however, the focus was on the open-mindedness of the believer, whether they only talk to people who agree with them and whether they only cite evidence which supports their beliefs. Unlike in factor two, therefore, there is no insinuation that the believers are not rational, but that they may be biased and may not expose themselves to different kinds of information that may enable them to revise their opinions. Therefore, these participants may question a believer's credibility if they stay within a silo and are members of self-reinforcing groups.

#### 5.2.4. Factor Four – Plausibility is Influenced by Consensus and Incoherence, but also How People Engage with their Beliefs

This factor was endorsed by three Q-sorts and accounted for 10% of the variance.

##### *5.2.4.1. Characteristic statements*

The participants that load onto this factor are focused more on the process of the belief and how people judge evidence. Like with the other factors, the sorters in this factor consider a belief to be more plausible when it is endorsed by researchers and scientists (1: +4), but to be less plausible when

experts disagree about the belief (21: -3) and when it is believed unquestioningly by the believer's social group (37: -4). This implies that the context from which the belief comes from, and the consensus with which it is held seems to be important.

The participants in this factor also suggest that a believer is more credible when they are open-minded about alternative evidence (26: +4), and when they are not too gullible or naïve (17: +3). They also suggest that plausibility is influenced by how a believer interacts with, make decisions or presents their beliefs. They thus suggest that a belief is less plausible when its presentation is incoherent or hard to follow (18: -3) and when the argument is circular (32: -4). It is also less credible when it is based on opinion (31: -3), involves making lots of assumptions (33: +3), or when the narrative of the belief is less plausible by requiring the cooperation of lots of different people (11: +3).

#### *5.2.4.1. Characteristics of the sorters*

The average age of sorters in this factor was 40.6 and ranged from 22 to 50. There were two women and one man. The ethnicity of the group differed, with one White British, one Indian and one White and Black African individual. Two of the members were atheists, and one held Hindu beliefs. Two worked full-time and one was a student. All were educated to degree standard or further, and all were in committed relationships (cohabiting or married). All identified as having responsible or professional jobs, and all held Conservative political beliefs.

#### *5.2.4.2. Factor summary*

This factor had the smallest number of sorters and was more focussed on how people engage with their beliefs. Whilst it shared several items with factors one, two and three (e.g., consensus between experts, coherence, open-mindedness, experts disagreeing and opinion versus fact), there were five unique items which seemed to focus more on the process of judging the belief. Sorters in this factor emphasise the idea that a believer presenting the belief is not just naively accepting information from their social group. The belief also becomes less plausible when it assumes an improbable number of people co-operating and thus the narrative becomes too complex. It thus seems that they

consider a belief to be less plausible when it involves making too many assumptions.

Judgements of plausibility also seems to be dependent on the reasoning for the belief, with a belief appearing less credible when the argument is circular. Unlike in any of the other factors, the sorters in this factor also suggested that the gullibility of the believer is important. Perhaps this group views these beliefs as unsophisticated and their believers as not able to properly reason about their beliefs.

### **5.3. Chapter Summary**

This chapter has discussed four different accounts for how participants judge the plausibility of a belief. The author has offered some interpretation of these factors, with some focus on their similarities and differences. These factors will be further discussed in the discussion chapter, with consideration of how they fit to the wider literature.



## 6.0 DISCUSSION

### 6.1. Chapter Introduction

In this chapter, the author will start by summarising the main findings of this study in relation to the research questions, before contextualising these findings within the wider research literature. The author will initially focus on what has been learned about conspiracy beliefs in general and then how the findings may relate to the literature on delusional beliefs. This will be followed by a critical evaluation of the study and then discussion of the wider implications.

### 6.2. Summary of Research Questions

The aim of the first Q-sort was to address the research question: How do individuals identify certain beliefs to be conspiracy beliefs and the people who believe them to be conspiracy believers? Of those participated in this study, five factors were extracted and interpreted, suggesting five separate ways of conceptualising what conspiracy beliefs are. These five factors and an overarching summary of each factor are listed in table 8.

Table 8.

*Summary of the Factors for Q-sort one*

Factor	Description of the Factor
Factor One	Conspiracy beliefs are false, illogical and harmful beliefs
Factor Two	What gets labelled as a conspiracy belief are attempts to expose the truth
Factor Three	There are different kinds of conspiracy beliefs, with different consequences
Factor Four	Conspiracy beliefs involve entertaining beliefs about elites acting conspiratorially but do not prevent them from gaining power

Factor Five	Conspiracy beliefs are unsophisticated beliefs about religious groups and politicians held by a self-reinforcing minority
-------------	---

The aim of the second Q-sort was to address the research question: “What factors of a conspiratorial belief (i.e. a ‘conspiracy theory’) make it seem implausible to participants?” From the participants in this study, four factors were extracted and interpreted. Although there was some overlap between these factors, the results suggest four different narratives for judging the plausibility of a belief. These four factors are listed in table 9.

Table 9.

*Summary of the factors for Q-sort two*

Factor	Description of the Factor
Factor One	A beliefs plausibility is judged through evidence, consensus and credibility
Factor Two	The plausibility of a belief involves judgements of the evidence and the credibility of the believer
Factor Three	Judgements of plausibility are influenced by evidence, credibility and consensus, but also characteristics of the believer
Factor Four	Plausibility is influenced by consensus and incoherence, but also how people engage with their beliefs

### 6.3. Discussing Findings within the Context of the Literature

Previous research exploring unusual beliefs has downplayed the role of the hearer of beliefs and implicitly assumed that they share the same ideas about the characteristics that make a belief unusual or seem implausible. Previous research has also rested on the assumption that the concept of a delusional belief is unproblematic, though debates about definitions of delusions suggest that this is not the case (e.g., Fulford, 1991; Harper, 1994; Oltmanns, 1998). Although some studies (e.g., O’Connor & Vandenberg, 2005, 2010) have looked at the potential influence of diagnoser’s assumptions (e.g. about

religious beliefs), this study looks at how members of the general public understand a belief to be unusual and how they judge its plausibility.

This is important as members of the general public regularly make decisions about the beliefs of others, and mental health professionals that diagnose delusional beliefs are also drawn from this population. Continuum approaches (e.g., Freeman, 2006; Johns, 2005; Peters et al., 1999a, 1999b) also suggest that a significant minority of the general population hold unusual beliefs without experiencing any difficulties. There is thus a risk of inappropriately pathologising beliefs and diagnosing beliefs as delusional on the basis of 'taken for granted' assumptions (e.g. common-sense judgements of plausibility).

### 6.3.1. Conspiracy Beliefs

#### *6.3.1.1. Conceptualisations*

Within this study, conspiracy beliefs were explored due to evidence that suggests that they share many of the same features of delusional beliefs (e.g., Corlett, 2015; Dagnall et al., 2015; Sutton, 2004). However, a focus on conspiracy beliefs is also arguably important in its own right, specifically in terms of how people evaluate information. This is particularly significant given the prevalence and impact of conspiracy beliefs in everyday discourse and debate, and the harmful effects that they may have (e.g. leading to cynicism or apathy about political topics, understanding of science or decisions about health). Such beliefs may be particularly dominant at times of uncertainty, such as when information is conflicting or when there is debate. This may be because conspiracy beliefs can help people to find meaning when events appear random (Douglas, Sutton & Cichocka, 2017), or give people a sense of control by rejecting official narratives (Goertzel, 1994).

As discussed in the introduction, there is significant debate about how conspiracy beliefs are defined, with the current understanding being fairly abstract and based on an implicit homogenising assumption (i.e., that the term conspiracy belief represents one universal construct). Broadly speaking, previous definitions suggest that conspiracy beliefs involve a secret group of dominant others, who plot destructive or adverse events which have negative consequences (e.g., Aaronovitch, 2010; Byford, 2011; Dentith & Orr, 2017). They are also generally assumed to include powerful and malevolent groups

(Douglas et al., 2019), vary significantly in terms of their content (Samory & Mitra, 2018) and are not supported by evidence (Freeman & Bentall, 2017). Moreover, whilst there is some research examining the psychological or cognitive processes of conspiracy beliefs (e.g., Brotherton & French, 2014; Douglas, Sutton, Callan, Dawtry, & Harvey, 2016; Swami et al., 2014; van Prooijen, Douglas, & De Inocencio, 2018) and some of the causal factors which increase the propensity of holding conspiracy beliefs (e.g., Douglas & Sutton, 2011; Whitson & Galinsky, 2008), no previous research (to the authors knowledge) has focussed on the hearer of conspiracy beliefs.

The first Q-sort highlighted five separate narratives for understanding conspiracy beliefs. Whilst the first factor suggests a dominant understanding of conspiracy beliefs, the other factors suggest that there are other interpretations. In contrast to the generic conceptualisation of conspiracy beliefs, therefore, this study highlights a multiplicity of understandings, with some participants endorsing more typical tropes (e.g., conspirators acting in secret, information not being shared, that there are plans and connections behind world events), and others holding views that diverge from typical understandings. For example, whilst this study supports the classic idea that conspiracy beliefs are harmful and negative (e.g., Lamberty & Imhoff, 2018; Lantian et al., 2018; Thorburn & Bogart, 2005), it also supports the limited research that suggests that conspiracy beliefs can have benefits and positive consequences, such as by inspiring and justifying protest movements (Imhoff & Bruder, 2014) or increasing government transparency (Clarke, 2002). This disparity in understanding conspiracy beliefs was further highlighted by some participants suggesting that conspiracy beliefs are benign, with neither helpful nor harmful properties.

Another example of difference was that whilst some participants emphasised the idea that conspiracy beliefs involve powerful or hostile outgroups (e.g., Douglas et al., 2019), others did not. There was also divergence in who they considered the conspirators to be. This could in some way perhaps be related to the demographics of the sorter (Imhoff & Lamberty, 2018; Van Prooijen & Van Lange, 2014). In factor three, for example, the sorters were more likely to have religious beliefs and to also consider the target of conspiracies to be religious groups, and so those sorters may have had different exposure or experiences of conspiracy beliefs.

The first Q-sort also showed an apparent difference in how participants felt about conspiracy beliefs, with some demonstrating more positive views than others. There also appeared to be divergence in the perceived legitimacy of the term ‘conspiracy belief’, with some refuting its legitimacy and thus suggesting that it is used as a term to discredit or disqualify a belief (Harambam & Aupers, 2017; McKenzie-McHarg & Fredheim, 2017; Räikkä & Basham, 2018). Interestingly, the demographics of the sorters in factors that appeared to hold a more favourable view of conspiracy beliefs tended to fit with the more typical demographic features of conspiracy believers, such as that they were younger men (e.g., Freeman & Bental, 2017). It is thus possible that some of the participants in this study held conspiracy beliefs or at least viewed them positively. The first Q-sort thus clearly demonstrated a broad range in understanding conspiracy beliefs, and thus further questioned the validity and reliability of the existing conceptualisation.

#### *6.3.1.2. Judgements of plausibility*

The second Q-sort also elicited four separate narratives of how hearers of conspiracy belief claims judge their plausibility. The author found no previous research exploring this, and so therefore suggests that the current study has opened a new channel of information, and thus further potential avenues for research. Overall, the first factor suggests a dominant approach to assessing plausibility, though the other factors suggest a range of other indications. Though certain statements were important features of all four factors (e.g., the evidence and credibility of the belief, and the consensus with which it is held), each factor varied in the extent to which it was influenced by other variables, with some emphasising features such as the characteristics of the believer, and others stressing the coherence of the argument.

Given the lack of previous research, the author attempted to consider whether this research fit with broader claims about how the public assess the evidence of scientific information. There are a small number of studies that consider public understandings of science. Of these, evidence suggests that approximately half of the public implicitly trust scientific claims with no specific reason and without verification of the claims. However, they are considered to be more plausible when heard directly from a scientist and not via a journalist, and so the source of the information appears to be important (Castell et al.,

2014). Other evidence suggests that consensus for the scientific claims can increase judgements of plausibility, but that this is moderated by a participants overall trust in science (Chinn, Lane & Hart, 2018). This fits with research examining the decision-making around climate change. Evidence suggests that despite scientific uncertainty, because the vast majority of scientists endorse the same viewpoint, the general public are also more likely to endorse that viewpoint (Bertoldo et al., 2019). Other evidence also suggests that judgements of plausibility are influenced by people's emotional responses to the scientific information being presented (Drummond & Fischhoff, 2020). The current study thus appears to offer some support for the research examining judgements of scientific claims in general, as well as highlighting other factors that can influence decision-making.

Overall, therefore, this study suggests a range of different factors that appear to influence how conspiracy beliefs are constructed and the plausibility of belief claims are judged. These factors will now be further considered in terms of how they relate to research concerning the conceptualisation and assessment of delusional beliefs.

### 6.3.2. Delusions

#### *6.3.2.1. Conceptualisations*

Of most relevance to the aims of this study is what can be learned and applied to the existing literature concerning how delusional beliefs are understood and evaluated. The author was interested in how judgements of plausibility occur within everyday social contexts, but also how this can be applied to mental health settings, as the study design rests on the premise that despite training, professionals are a sub-population of the general population. Unlike previous research, this study attempts to extract the assumptive framework of the hearer. The author will begin by considering the implications of the first Q-sort.

As the different factors extracted from the first Q-sort highlight, there are numerous different understandings of conspiracy beliefs and so they cannot be categorised as one homogenous construct. Whilst some focus on different targets (e.g., religious groups, officials or elites), others do not make any inferences about who the targets are. Moreover, others disagree in terms of how helpful, benign or harmful they can be. Similar to the concept of a

conspiracy belief, there is also significant debate about how delusional beliefs are conceptualised. This construct has been criticised for problems of reliability and validity, heterogeneity and co-morbidity (e.g., Bentall, 2004; Kirk & Kutchins, 1992; Kutchins & Kirk, 1999; Rogers & Pilgrim, 2003), and so these findings may also be helpful for understanding the conceptual limitations observed in delusional beliefs.

This research may help to explain, for example, why diagnosers do not always agree when trying to determine if someone is 'delusional'. Current understandings of delusional beliefs within mental health contexts are based on the assumption that beliefs lie in the head of the believer (Gergen, 1985) or exist separately from the individuals who make the judgements and the individuals who make the belief claims (Fernando, 1997). There is also an assumption that diagnosers have a list of criteria that they just apply in a straightforward way, yet research suggests that despite being trained to use diagnostic criteria, mental health professionals only agreed on approximately 50% of occasions (Kirk & Kutchins, 1994).

There is also evidence to suggest that diagnosers demonstrate flexibility in the criteria they use to interpret a delusion (Harper, 1994; Rosenham, 1973). Harland et al., (2009) used a questionnaire to assess the attitudes of trainee psychiatrists towards four mental illnesses and eight models of mental illness (e.g., psychodynamic, biological). They found that they were not fully committed to one particular explanatory model. Attitudes to schizophrenia were the most uniform, with the biological model most strongly endorsed, though the model used generally varied according to the illness in question. Dependent on the model drawn upon, therefore, a diagnoser may have a completely different conceptualisation of a delusional belief. This study thus supports research that suggests that hearers of belief have different criteria for understanding them, and that this is influenced by numerous factors.

Such factors may include the content of the beliefs, whether people agree with them, their underlying meaning or the identity of the believer. O'Connor and Vandenberg (2010), for example, suggest that the background of a hearer may cause them to perceive a belief differently (i.e., the perception of a belief was influenced by a hearers level of familiarity with the belief and how similar it is to their own beliefs). This may thus explain why some consider a delusion to be a meaningless symptom of an illness, whilst others consider it to

be related to the meaning of someone's life. This would thus have significant implications for how an individual is diagnosed and then treated within mental health settings.

The variation in how beliefs are conceptualised in this study may thus also offer support for the idea that delusional beliefs are contextually dependent and multi-dimensional (Gilleen & David, 2005). This would also fit better with more dimensional and less absolutist views of delusions. Oltmann (1998), for example, postulates that whether a belief is delusional or not may be best determined by flexibly considering a list of characteristics where none alone are sufficient.

Both Q-sorts also emphasised the interactional process of attempting to make sense of a belief claim, and trying to judge its plausibility. For example, some participants suggest that the term "conspiracy belief" can be used by a hearer to undermine a believer's argument, whilst others suggest that certain characteristics of the believer will influence the decision of a hearer. This fits with research by Lemert (1962; 1967) who focused on the interactional context of deciding that a belief may be delusional and suggested that the judgement about whether a belief is unusual is not determined by the believer but how the person listening makes sense of the belief. The second Q-sort in this study also suggests that numerous other factors may influence how members of the general population judge the plausibility of a belief. Given that trying to better understand these decision-making processes was the overarching aim of this study, the author will consider the implications of each factor separately.

#### *6.3.2.2. Judgements of plausibility*

The first and most widely endorsed of the factors suggested that the participants focussed almost exclusively on evidence, consensus and credibility when trying to assess the plausibility of a belief. This relates to one of the basic problems with the diagnostic process and the assumption that beliefs are straight-forwardly empirically verifiable. Within the diagnostic interview, the believer is expected to present evidence to support their belief claims despite the fact that most beliefs cannot be directly proven or investigated (Harper, 2011a), especially within the interview process. Therefore, this reliance on evidence and proof to attempt to verify someone's belief claims may not be



feasible, particularly as it is difficult to provide formally incontrovertible proof against most belief claims (Harper, 1994).

The sorters in this factor also suggested that the coherence of the narrative and how the argument is presented will influence their judgements of plausibility. This fits to some extent with research looking at how jurors make decisions about the credibility of someone's testimony in courtrooms. Bennett and Feldman (2014) suggested that a narrative becomes less plausible when there are numerous ambiguities, incomplete information or gaps in the story. This also supports the limited previous research which has tried to explore how judgements of the plausibility of delusional beliefs are made, which has suggested that it may be influenced by how a speaker communicates their belief claim (McCabe et al., 2004).

Moreover, the sorters in factor one were predominantly White British men who were in full-time employment. Their factual and logical approach to plausibility resonates with research that suggests that cultural norms within psychology and psychiatry reflect a 'universal standard', where anything that differs from the Western Euro-American or European male is considered irrational (Caplan & Cosgrove, 2004; Gaines, 1995). This may mean that anyone with beliefs that deviate from these Western normative values may be considered to be unusual, e.g., people from different religious backgrounds (O'Connor and Vandenberg; 2005, Rogers & Pilgrim, 2014).

The second and third factors incorporated judgments about believers and what factors may diminish their credibility. This ties into research which suggests that service-users beliefs may be considered less plausible because of judgments made about them as a person, as well as the beliefs, perceptions and the cultural assumptions of the hearer (e.g., Bennett, 1997).

In factor two, the participants suggested that their judgments of plausibility were particularly influenced by how emotional the believer is, or how suspicious they are. This has implications for mental health settings if mental health professionals are assumed to be influenced, at least to some extent, by the same factors as the general public. This may mean that if they consider someone as too emotional about their belief, the rationality of that person may be dismissed. However, in clinical settings, becoming emotional about ones belief may be justified as the implications of holding a belief are greater, especially as mental health professionals have the capacity to section someone

on the grounds of their belief. There was also suggestion that a belief would be less plausible if someone has a mental illness which supports the idea that the claims of an individual are seen as less persuasive to others if they are positioned as a psychiatric patient (e.g. Rosenhan 1973; Sanati & Kyratsous, 2015).

The participants in factor two also suggested that they relied upon more intuitive reasoning processes, which they may employ in the absence of evidence. This fits with research that suggests that within the diagnostic interview, mental health professionals usually judge the plausibility of a belief on the basis of 'common-sense' (Maher, 1992) and rhetorical resources, rather than rigidly employing objective criteria. Research suggests that this is often influenced by factors such as the physical characteristics, social category and emotional state of the believer (Harper, 1999). The sorters in this factor were also more ethnically diverse than in the other factors. One potential hypothesis for the importance of intuition for this group of sorters may be that certain cultures place more emphasis on different types of reasoning, with some cultures preferring more intuitive reasoning than others (e.g. Epstein, Pacini, Denes-Raj, & Heier, 1996; Nisbett, Peng, Choi, & Norenzayan, 2001). It could also be that individuals from different ethnic backgrounds have had more exposure to a greater range of beliefs (e.g., in religious or political circles etc.) which may perhaps include beliefs where evidence is not available or is hard to judge.

In factor three, there was suggestion that a believer is less credible if they exist within a self-reinforcing social circle and thus do not access alternative information. The same sort of scenario is less easy to apply to mental health settings as beliefs are generally idiosyncratic, though there are instances to suggest that a shared delusional belief system can develop within families (*La folie à deux*; Lasègue & Falret, 1877). They also indicate that they consider a belief to be less plausible when a believer makes too many assumptions, thus suggesting that their narrative may be biased. The sorters in this factor also suggest that information that is kept from the public, or revelatory evidence from whistle-blowers is particularly persuasive which may imply that they do not consider the media or world leaders to be trustworthy. This could in some way reflect the divergent political views of the group, with a quarter of them not holding mainstream political beliefs. This would further

indicate that the particular ideological worldview of a hearer may influence how they judge the plausibility of a belief.

The participants in both the second and third factors thus appear to be influenced by certain characteristics of the believer. This supports research that suggests that an individual's membership of a certain social category may affect how their distress is judged by others (Mirowsky & Ross, 2003; Rogers & Pilgrim, 2003), and that the assumptions and worldview of the hearer may have a very influential impact on how beliefs are judged (Georgaca, 2000, 2004). Diagnosing a delusion based on facets of individual judgement may be a further reason for why professionals reach different diagnostic conclusions. This may lead to serious epistemic injustices (Fricker, 2007), which will have significant implications within everyday contexts, but particularly in mental health settings.

The fourth factor also considered factors such as consensus and coherence, but also focussed on the belief process and reasoning. There is much discussion in clinical psychology and cognitive behavioural approaches which focus on appraisal and reasoning biases when trying to understand the processes underlying delusional beliefs. For example, cognitive behavioural approaches suggest that those holding delusional beliefs are more prone to reasoning biases or certain thinking styles (e.g., Freeman et al., 2002; Garety & Freeman, 1999; Freeman & Garety, 2014). Those in this factor suggest that if a believer appears gullible their beliefs will be judged as less plausible, suggesting that they do not consider believers to be able to adequately reason when considering their beliefs. The belief also becomes less plausible when the narratives become less probable, the argument is not logical or it involves making too many assumptions.

Overall, therefore, this study supports the literature that suggest that a delusional belief is not a homogenous construct. It also suggests that people emphasise different aspects of a belief when judging its plausibility. The possibility that mental health professionals might have different implicit assumptions about what a delusion is and what makes a belief seem more (or less) plausible will have important implications. How delusional beliefs are conceptualised thus requires further exploration, with particular emphasis on the impact of this in clinical settings. This study thus suggests the need to answer new questions about delusional beliefs, instead of trying to find new ways to

answer old ones. With this in mind, the author will now discuss some of the limitations of the current study.

## **6.4. Critical Review**

### **6.4.1. Evaluation of the Research**

The author will begin the critical review with an evaluation of the research process and design. This will be followed by a critical appraisal of some of the limitations of the study. To evaluate the quality of this study, the author will use the markers for qualitative research. This is because despite being a mixed-methods design, the typical markers of quantitative research (i.e., reliability, validity, generalisability, representativeness and objectivity) cannot be readily applied to Q-methodology (Kitzinger, 1999). Spencer and Ritchie (2012) identified three recurring principles (applicable across most epistemological perspectives) that underpin concepts of quality for qualitative studies. Each of these principles will be considered in turn, whilst keeping in mind that due to the qualitative nature of these criteria, they are susceptible to alternative interpretations (Yardley, 2000).

#### ***6.4.1.1. Contribution***

Contribution is the first criteria and refers to the relevance and value of the research evidence in terms of theory, practice or policy, and requires that the study develops existing understandings. Some of the implications of this study have been discussed later in this chapter. The author hopes, however, that the biggest impact of this work is to create positive changes in clinical settings by trying to improve ethical practice, particularly in settings which are typically dominated by medical discourses. The author anticipates that this study can contribute to this aim by demonstrating several equally valid accounts for how unusual beliefs are understood and assessed, and by encouraging mental health professionals to question their own worldviews, biases and assumptions. The author also hopes that this study will open up new avenues of research that considers how unusual or delusional beliefs are conceptualised and how people make judgements of their plausibility.

#### *6.4.1.2. Credibility*

Credibility refers to the plausibility and defensibility of the claims made by the research. It thus relates to how believable the findings are, as well as how compellingly a claim is made and supported by evidence (Seale, 2007; Whittemore, Chase & Mandle, 2001). This criterion suggests that interpretations must be grounded in the data collected within the study, especially if the findings were not as expected, and there must be demonstration that alternative explanations have been considered.

As credibility rests on the evidence presented, the author tried to demonstrate this through the inclusion of data extracts and verbatim quotations to show how interpretation was grounded in the data and through transparent, clear and reflexive documentation of the research process (see Appendix D). Q-methodology also provides statistical credibility to these interpretations by extracting statistical patterns across a large group. The author also attempted to check credibility by using two analysts (the author and research supervisor), by elucidating transparent criteria to select appropriate factors, through peer reviews of the study design at every step of the process and by asking participants to comment on the study process.

#### *6.4.1.3. Rigour*

Rigour is postulated to be synonymous with validity and relates to the defensibility of the approach. This includes having a convincing rationale for the choice of methodology (Mason, 2002; Patton, 2002), a clear logic of inquiry and ensuring that the study meet its aims (Fournier & Smith, 1993), and thoroughness throughout the processes of data collection, analysis and reporting the findings.

The importance of transparency and reflexivity is thus important, and the author attempted to ensure this through careful documentation of the research process, clearly outlining and justifying any decision-making processes, trying to obtain as representative a sample as possible, acknowledging the limitations of the design and by including the factor loadings in the document (as shown by presenting the full factor arrays in appendices N and Q). Viewing something from only the author's perspective will limit the insights that can be made but by including the factor arrays in this document, the author hopes to enable open discussion of their interpretations. This may open new ways of understanding

the data and new potential areas of investigation. This is also argued to be more in keeping with a social constructionist approach of making sense of knowledge. The author has also detailed any assumptions made and where relevant has critically reflected upon the work.

#### 6.4.2. Study Limitations

##### *6.4.2.1. Limitations of the methodology*

Despite increasing in popularity, Q-methodology is still not a commonly used methodology within psychological research (van Exel & de Graaf, 2005) and so may be misconstrued by other researchers (Kitzinger, 1999). As the method is a mixture of both quantitative and qualitative factors, it may be criticised by both types of researchers which may be inappropriate as it should not be evaluated against criteria that are not appropriate or applicable (Kitzinger, 1999).

As discussed in chapter two, the author chose to apply different criteria for selecting how many factors to extract and retain in the final solution. The author chose this due to the context of this research, as within clinical settings and through application of the DSM-5, a belief would be dismissed as implausible due to a series of fixed, rigid criteria. The author thus considered that it would contradict the aims and the epistemological position of the study to rigidly apply the same criteria to both Q-sorts when this would limit the wealth of knowledge and the number of accounts that could be elucidated from the study.

Nevertheless, deciding which criteria to use (alongside other qualitative aspects of the research) are evidently limited by the author's experience, assumptions and context as a researcher. The author has attempted to provide alternative interpretations as much as possible. However, it is possible that if someone else were to look at the data from this study they may have alternative interpretations or ideas. Rather than this becoming a debate over one particular 'truth', this methodology can readily accommodate multiple 'truths' within the factors extracted from the study, which also fits with the epistemological position espoused throughout the study. Another potential limitation to the design, however, is that the factors extracted from this particular study might look completely different if another sample of participants were to complete the study, or even if the same participants were to complete the study again but at a different time.

Moreover, as Q-methodology adopts a quasi-normal distribution for arranging the statements, some participants may have felt constrained in how they could respond. This was suggested in a comment by two of the participants who felt that they agreed or disagreed with more statements than they could select. This may have caused participants to feel frustrated and may not have enabled participants to provide a full description of their perspective. It is also possible that participants may have felt that they could not have agreed or disagreed with most/ all of the statements if they wished to. The author tried to circumvent this problem by creating a representative and balanced Q-set that captured an unbiased full range of possible opinions in relation to each research question. This was designed to ensure that participants could respond to the research questions in any way that they wanted using the items provided with a range of contrasting opinions and items that they could both agree and disagree with.

#### *6.4.2.2. Limitations of the design*

Q-methodology provides a series of statements and thus a broad range of different viewpoints to select from and then rank. As there were two Q-sorts, the author tried to keep the Q-sets as short as possible to avoid participants becoming bored, and to avoid issues of complexity. As Brown (1980) suggested, with just 33 statements there would be over 11000 possible ways for statements to be arranged.

However, although the author attempted to ensure that all of the themes identified in the concourse were sampled in each Q-sort, it may have meant that some areas were overlooked. Moreover, the concourse sampled was generated by the author and research supervisor, and thus subject to their biases and assumptions. Most previous research examining conspiracy beliefs has focussed more on the content of the beliefs and the characteristics about believers. Without previous research to draw upon, it was hard to know what items to focus on. There are thus potentially lots of other factors that are still unknown.

The author tried to rectify these potential problems by asking a small sample of the general public to review the statements once they had been generated, and by conducting a small pilot study. This was designed to help to ensure that the statements were clear and understandable, streamlined, and

enabled the author to ensure that there were other perspectives involved. Reassuringly, however, Stainton Rogers (1995) suggests that important information can still be gathered from Q-sorts that do not have perfect Q-sets.

#### *6.4.2.3. Online difficulties*

Besides the apparent benefits of cost, time and effort of conducting the study online, this also meant that the author was unable to know who completed it, who did not and who dropped out. There were two comments that the software programme was confusing, and the author had one person email to say they found it too confusing to complete. The researcher's absence thus meant that they were unable to answer questions about the logistics of the study, the meanings of the statements, or gain further understanding of participants' subjectivity. It was also not possible to ascertain whether it was completed in a sensible way.

Whilst having a pre-developed programme to conduct a Q-methodology study online was very helpful, future programmes may want to consider making the completion of the follow-up questions a requirement of the study, as well as collecting basic data about participants who started and did not complete the study. The design was also somewhat difficult to use and so making the instructions larger on the screen, and perhaps having an interactive trial at the start to the study would have been helpful.

Moreover, it may have been more helpful for the author to have conducted a brief semi-structured telephone interview after each Q-sort. This could increase the quality and amount of feedback obtained from participants about how they rated the statements. If this study were replicated in the future, this would certainly be one way of assisting the interpretation of the data that was generated from this study. However, this adjustment would need to be considered alongside the time implications for participants as any increase in the amount of time required to complete the data collection might act as a deterrent from participating.

#### *6.4.2.4. Recruitment of participants*

One further potential limitation of this study was the use of opportunity sampling to recruit participants. Though the author attempted to recruit from around the UK and thus achieve a sample representative of the UK population,



people from non-White backgrounds were under-represented. Gathering the perspectives of people from diverse ethnic backgrounds would be invaluable for exploring cultural differences in the judgments of plausibility. It is thus important that future research incorporates a more varied demographic sample of participants to attempt to understand whether the factors extracted in this study are also important across other cultures and ethnicities. With these limitations in mind, the author will next consider the wider implications of this study.

#### 6.4.3. Reflexivity

As this thesis is an exploration of subjectivity, the author considered it to be particularly pertinent to reflect upon their personal influence on the research process. The author considers their influence to be inherent from the very beginning of this process, from when the author decided to research this particular topic area. The author was personally attracted to this area due to personal motivations to better understand the processes that influence how decisions of plausibility are made by mental health professionals. This was predominantly motivated by the author's values and beliefs about the importance of equality, and in light of research that suggests that the judgements of mental health professionals around whether something is unusual or pathological may be obscured by their own implicit assumptions and biases. The author was personally motivated to better understand this due to the potential injustices that may arise as a result of biased judgements, and the everyday implications that these injustices may have in clinical settings and numerous other contexts, including legal and social. With these wider implications in mind, the author was also interested in how judgments of plausibility are made by members of the general population, and why the testimony of some individuals is given less credible than others.

The author thus decided that a useful way of exploring this would be by studying the general population. The author also made the assumption that as mental health professionals are a subset of the general population, any conclusions drawn about the general population sample could also be applied (at least to some extent) to mental health professionals. The author also made the assumption that delusional or unusual beliefs could be explored by focussing specifically on conspiracy beliefs. The author based this rationale on research which suggests that delusional and conspiratorial beliefs share certain

similarities. Whilst the author has tried to justify these claims and find evidence to support them, there is a possibility that such assumptions are misinformed or biased, and so the conclusions that were drawn from this particular research project may be influenced by these factors. The author also acknowledges that they lean towards a particular way of understanding unusual beliefs, which is from the perspective that they may make sense when considered within the context of an individual's social reality. The author has tried to remain neutral and not allow their personal views of unusual beliefs to influence the items presented to the participants, though the likelihood is that it will have had some impact on the overall design process.

The author's influence was also present at every further step of the design process. For example, the author selected the items that were included in the concourse and then in each Q-set. Although the author tried to sample as broad of range of sources as possible, it is possible that they missed something, that certain areas were over- or under-represented, or that they interpreted the information in line with their own perceptions, which may have impacted on the quality and breadth of the data. The author also selected how many factors to retain in the final solution, and then how these were interpreted. It is likely, however, that the interpretation of the accounts was influenced to some extent by the author's context as a researcher, and their social, cultural and psychological understanding of conspiracy beliefs, as well as their beliefs about the issues of injustice surrounding judgements of plausibility. The author was also aware of issues of power when interpreting the data as the author had access to certain theories that they were able to draw upon to make interpretations about what the sorters in each account may have thought. The author was thus aware that they must be sensitive to researcher dominance and miscommunication (Cohn & Lyons, 2003).

One attempt to overcome these issues was through the inclusion of qualitative questions to enrich the information gathered and to allow participants to discuss their choices, but the information gathered was minimal and an area that needs to be improved in future studies. The author also attempted to follow the standard procedures for designing a Q-methodology study as much as possible, be transparent about any assumptions made and ground the interpretations in the data. One of the reasons that attracted the author to Q-methodology was because it allows for multiple truths. The author felt that

making the data available in the appendices was important, and reflected their position as a researcher which is to invite open discussion of their interpretations and to enrich the narratives that they extracted from this study. The author felt that their main aim as a researcher was to open up new ways of understanding these issues, to obtain multiple perspectives and to create further avenues of investigation, which they hope was apparent throughout the research process.

## **6.5. Implications**

The findings of this study have important implications for future research, social policy and within clinical practice. The author will initially consider the implications for conspiracy beliefs in general, before attempting to relate this to the broader concept of delusional beliefs and thus mental health contexts.

### **6.5.1. Conspiratorial Beliefs**

Whilst this study focused on conspiracy beliefs as they share many characteristics with delusional beliefs, this study may have important implications for future research concerning conspiracy beliefs. Whilst the previous literature has traditionally focussed on how people reason, the characteristics of the believer and intrapsychic factors, this study offers new territory for conspiracy belief research by potentially opening up other ways of understanding how members of the general public think about conspiracy beliefs (and thus a shift away from broader, homogenous descriptions). It also offers an exploration of how people weight different factors when judging how plausible conspiracy belief claims are.

The findings of this study may also have important implications for social policy and how conspiracy beliefs affect the way important topics such as politics, science and health are spoken about. As research suggests, conspiracy beliefs can have potentially harmful effects, such as by not engaging with public health interventions (e.g., Thorburn & Bogart, 2005), through social exclusion (e.g., Lantian et al., 2018) and through exclusion from political discourse (Goertzel, 1994; Jolley & Douglas, 2014a). When trying to counter conspiracy belief claims, it is thus important to understand that people have different worldviews and thus alternative ways of determining whether a belief is

conspiratorial or not. It is generally assumed that people try to judge the plausibility of a belief through fact checking, reasoning or evidence, but this study demonstrates that there are numerous other factors involved. Thus, whilst it is important to try to teach people how to reason or properly weigh evidence, it is also clear that counter conspiracy arguments need to be framed in different ways. This study begins by suggesting that people with different worldviews will need to be approached differently.

Similarly, educators may use the findings to develop educational programmes that move away from the current focus on fact-checking and reasoning skills to evaluate evidence and instead emphasise more relevant criteria. For example, factor two in Q-sort one indicates that some people feel that conspiracy beliefs may be attempts to expose the truth (and are thus sceptical about the media and the influence of elites), and so may be wary of messages that stress how the majority of scientists think about a topic. For these kinds of views, a more nuanced approach might be useful. Educators could perhaps draw on the history of science to demonstrate that some ideas that are now accepted were originally a minority view but that this only occurred through empirical research that gradually developed enough facts to enable paradigm change. The second Q-sort also suggests that simply focusing on the reasoning behind a belief may be inadequate. For example, factors two and three suggest that educators might encourage people to consider the credibility of those propounding conspiracy beliefs (e.g., are they open-minded or existing in a self-reinforcing echo chamber? What motives or conflicts of interest might they have?). For example, Andrew Wakefield's claims about the MMR vaccine were questioned not only because of his inadequate approach to science but because he was found to have committed fraud and to have conflicts of interest.

Journalists and editors could also draw upon similar learning to consider how to pitch their messages and develop alternative strategies for presenting information. The media often focuses on a consensus view which serves powerful interests but the media can also expose powerful elites (e.g., current debates about government inaction about the risk of pandemics). This may also provide members of the general public with the tools to engage with public discourse in a way that better fits their understanding of information.

### 6.5.2. The Diagnosis of Delusional Beliefs

In terms of delusional beliefs, these findings may encourage researchers to question and then further deconstruct the existing conceptualisation and criteria for diagnosing delusional beliefs. Further studies are needed to build upon the O'Connor and Vandenberg studies (which focussed only on religious themes) to investigate the influence of other kinds of implicit assumptions. Moreover, drawing upon the Harland et al. (2009) study which explored the different causal models that psychiatrists use to assess service-users, it would be helpful to look at other assumptive frameworks that may influence this process (e.g., service-user demographics or knowledge about the belief claims). One way of exploring this could be to use a vignette study to investigate the extent to which diagnosers judge a belief as delusional despite a lack of evidence to substantiate this, and vary the information that is provided to them. It could also be interesting to use observational studies of psychiatric assessments followed by interviews with service-users and diagnosers to further explore the factors involved in the assessment process.

Within mental health settings, this study suggests the need to facilitate greater tolerance and understanding of different conceptualisations of delusional beliefs, as well as questioning the pathologising and taken-for-granted assumptions that appear to occur when assessing whether beliefs are unusual. This is particularly important due to the significantly harmful implications of not doing so, with evidence suggesting that a person considered to be delusional is more likely to be exposed to coercive practice, deprivation of liberty and thus the infringements of their human rights (Sanati & Kyratsous, 2015). This can also have significant implications within other societal systems, such as within the legal system. Research suggests, for example, that many lawyers and judges operate under the premise that mental health professionals are infallible and their judgements represent an objective science (Caplan & Cosgrove, 2004). Evidence also shows that employers are less likely to recruit someone with a psychiatric diagnosis (Social Exclusion Unit, 2004), as well as other prejudices and negative public attitudes (Angermeyer & Dietrich, 2006; Rüsch et al., 2005).

This could be achieved within mental health training programmes (e.g., for psychiatrists, psychologists, nurses etc.) by helping professionals to examine their assumptive frameworks and worldviews. Training programmes

should thus facilitate the development of competencies such as respecting different belief systems, holding a non-judgemental attitude and critically reflecting upon one's own assumptions. This might encourage professionals to ask different kinds of questions (e.g., about the meaning and context of a belief), instead of just focussing on whether a belief seems delusional on common-sense grounds. Programmes should also encourage professionals to adopt a more modest position and thus unless they have attempted to empirically investigate or test a belief, they should be cautious about inferring its falsity. This approach should also be exemplified when interacting with members of the general public to facilitate their understanding of delusional beliefs beyond conventional psychiatric conceptualisations, and to encourage them to become aware of their biases when judging the beliefs of others.

## **6.6. Final Comments**

This exploration of the judgements of plausibility has made a starting point for making implicit social norms more explicit. It calls for members of the general public, and especially mental health professionals, to further question whether their judgements lead to socially unjust outcomes. Only by acknowledging one's own biases and prejudices can they be either revised or abandoned.

## 7.0. REFERENCES

Aaronovitch, D. (2010). *Voodoo histories: How conspiracy theory has shaped modern history*. New York: Riverhead Books.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Angermeyer, M. C., & Dietrich, S. (2006). Public beliefs about and attitudes towards people with mental illness: A review of population studies. *Acta Psychiatrica Scandinavica*, 113(3), 163-179.

Barkun, M. (2003). *A culture of conspiracy: Apocalyptic visions in contemporary America*. London: University of California Press.

Barrett, R. J. (1988). Clinical writing and the documentary construction of schizophrenia. *Culture, Medicine & Psychiatry*, 12, 265-99.

Bell, V., Halligan, P. W., & Ellis, H. D. (2006). The Cardiff Anomalous Perceptions Scale (CAPS). *Schizophrenia Bulletin*, 32, 366–377.

Bennett, W. L., & Feldman, M. S. (2014). *Reconstructing reality in the courtroom: Justice and judgement in American culture* (2<sup>nd</sup> ed.). New Orleans, Louisiana: Quid Pro Books.

Bennett, J. F. (1997). Credibility, plausibility and autobiographical oral narrative: Some suggestions from the analysis of a rape survivor's testimony. In A. Levett, A. Kottler, E. Burman, & I. Parker (Eds.), *Culture, Power & Difference: Discourse Analysis in South Africa* (pp. 96-108). London: Zed Books.

Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*. London: Allen Lane/Penguin.

Berrios, G. (1991). Delusions as "wrong beliefs": A conceptual history. *British Journal of Psychiatry*, 159(14), 6– 13.

Bertoldo, R., Mays, C., Böhm, G., Poortinga, W., Poumadere, M., Tvinnereim, E., ... & Pidgeon, N. (2019). Scientific truth or debate: On the link between perceived scientific consensus and belief in anthropogenic climate change. *Public Understanding of Science*, 28(7), 78-796.

Bjerg, O., & Presskorn-Thygesen, T. (2017). Conspiracy theory: Truth claim or language game. *Theory, Culture and Society*, 34(1), 137-159.

Bortolotti, L. (2009). *Delusions and Other Irrational Beliefs*. Oxford: Oxford University Press.

Bortolotti, L. (2018). Delusion and the Three Myths of Irrational Belief. In L. Bortolotti (Eds.), *Delusions in Context* (pp. 9-116). Cham, Switzerland: Palgrave Macmillan.

Boydell, J., van Os, J., McKenzie, K., Allardyce, J., Goel, R., McCreadie, R. G., & Murray, R. M. (2001). Incidence of schizophrenia in ethnic minorities in London: Ecological study into interactions with environment. *British Medical Journal*, 323(7325), 1336–1338.

Boyle, M. (1997). Minimum contents. *OpenMind*, 87, 12–13.

Boyle, M. (2002). *Schizophrenia: A Scientific delusion?* (2nd ed.). London: Routledge.

Brotherton, R. (2015). *Suspicious minds: Why we believe conspiracy theories*. London: Bloomsbury Publishing.

Brotherton, R., & Eser, S. (2015). Bored to fears: Boredom proneness, paranoia, and conspiracy theories. *Personality and Individual Differences*, 80, 1–5.

Brotherton, R., & French, C. C. (2014). Belief in conspiracy theories and susceptibility to the conjunction fallacy. *Applied Cognitive Psychology*, 28(2), 238–248.

Brotherton, R., French, C. C., & Pickering, A. D. (2013). Measuring belief in conspiracy theories: The generic conspiracist beliefs scale. *Frontiers in psychology*, 4(279), 1-15.

Brown, S. R. (1980). *Political Subjectivity*. New Haven: Yale University Press.

Brown, S. R. (1986). Q technique and method: Principles and procedures. In W. D. Berry & M. S. Lewis-Beck (Eds.), *New tools for social scientists: Advances and applications in research methods* (pp. 5-76). Beverly Hills: Sage Publications.

Burke, L. E. C-A. (2014). Post-colonial science education: The challenge of negotiating researcher positioning. *International Journal of Research & Method in Education*, 37(3), 242–255.

Burr, V. (1995). *An introduction to social constructionism*. London: Routledge.



- Byford, J. (2011). *Conspiracy theories: A critical introduction*. Basingstoke: Palgrave MacMillan.
- Caplan, P. J., & Cosgrove, L. (2004). *Bias in psychiatric diagnosis*. Oxford: Jason Aronson.
- Castell, S., Charlton, A., Clemence, M., Pettigrew, N., Pope, S., Quigley A., . . . Silman, T. (2014). *Public Attitudes to Science 2014: Main Report*. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/348830/bis-14-p111-public-attitudes-to-science-2014-main.pdf)
- Chadwick, P. D. J., & Lowe, C. F. (1994). A cognitive approach to measuring delusions. *Behaviour Research and Therapy*, 32(3), 355-367.
- Chinn, S., Lane, D. S., & Hart, P. S. (2018). In consensus we trust? Persuasive effects of scientific consensus communication. *Public Understanding of Science*, 27(7), 807-823.
- Clarke, S. (2002). Conspiracy theories and conspiracy theorizing. *Philosophy of the Social Sciences*, 32(2), 131-150.
- Coady, D. (2006). *Conspiracy theories: The philosophical debate*. Aldershot: Ashgate Publishing Ltd.
- Cohen, A., Padmavati, R., Hibben, M., Oyewusi, S., John, S., Esan, O., . . . Morgan, C. (2016). Concepts of madness in diverse settings: A qualitative study from the INTREPID project. *BMC Psychiatry*, 16(1), 388.
- Cohn, E. S., & Lyons, K. D. (2003). The perils of power in interpretive research. *The American Journal of Occupational Therapy*, 57(1), 40-48.
- Coogan, J., & Herrington, N. (2011). Q methodology: An overview. *Research in Secondary Teacher Education*, 1(2), 24-28.
- Corlett, P. R. (2015). Answering some phenomenal challenges to the prediction error model of delusions. *World Psychiatry* 14(2), 181–183.
- Coulter, J. (1973). *Approaches to insanity: A philosophical and Sociological Study*. London: Martin Robertson.
- Crichton, P., Carel, H., & Kidd, I. J. (2017). Epistemic injustice in psychiatry. *British Journal of Psychiatry*, 41(2), 65-70.
- Cromby, J., & Harper, D. (2009). Paranoia: A social account. *Theory and Psychology*, 19(3), 335–361.

Dagnall, N., Drinkwater, K., Parker, A., Denovan, A., & Parton, M. (2015). Conspiracy theory and cognitive style: A worldview. *Frontiers in Psychology*, 6(206), 1-9.

David, A. S. (1999). On the impossibility of defining delusion. *Philosophy, Psychiatry & Psychology*, 6(1), 17-20.

Davis, J., Wetherell, G., & Henry, P. J. (2018). Social devaluation of African Americans and race-related conspiracy theories. *European Journal of Social psychology*, 48(7), 999-1010.

Delaney, H. D., Miller, W. R., & Bisonó, A. M. (2013). Religiosity and spirituality among psychologists: A survey of clinician members of the American Psychological Association. *Spirituality in Clinical Practice*, 1(5), 95–106.

Dentith, M. R. X., & Orr, M. (2017). Secrecy and Conspiracy. *Episteme*, 15(4), 1-18.

Douglas, K. M., & Sutton, R. M. (2011). Does it take one to know one? Endorsement of conspiracy theories is influenced by personal willingness to conspire. *British Journal of Social Psychology*, 50(3), 544-552.

Douglas, K. M., Sutton, R. M., Callan, M. J., Dawtry, R. J., & Harvey, A. J. (2016). Someone is pulling the strings: Hypersensitive agency detection and belief in conspiracy theories. *Thinking and Reasoning*, 22(1), 57–77.

Douglas, K. M., Sutton, R. M. & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, 26(6), 538-542.

Douglas, K. M., Uscinski, J. E., Sutton, R. M., Cichocka, A., Nefes, T., Ang, C. S., & Deravi, F. (2019). Understanding conspiracy theories. *Political Psychology*, 40(1), 3–35.

Drochon, H. (2017). We're suckers for conspiracy theories – and it's a sign of a deep social malaise. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2017/nov/01/conspiracy-theories-social-malaise-fake-news-exclusion>

Drochon, H. (2018). Who believes in conspiracy theories in Great Britain and Europe? In J. E. Uscinski (Eds.), *Conspiracy theories and the people who believe them* (pp. 337-346). New York: Oxford University Press.

Drummond, C., & Fischhoff, B. (2020). Emotion and judgements of scientific research. *Public understanding of science*, 29(3), 319-334.

Eccleston, C., Williams, A. C., & Stainton Rogers, W. S. (1997). Patients' and professionals' understandings of the causes of chronic pain: Blame, responsibility and identity protection. *Social science and medicine*, 45(5), 699-709.

Eghigian, G. (2017). Making UFOs make sense: Ufology, science, and the history of their mutual mistrust. *Public Understanding of Science*, 26(5), 612-626.

Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive—experiential and analytical—rational thinking styles. *Journal of Personality and Social Psychology*, 71(2), 390–405.

Fearon, P., Kirkbride, J. B., Morgan, C., Dazzan, P., Morgan, K. D., Lloyd, T., . . . Murray, R. M. (2006). Incidence of schizophrenia and other psychoses in ethnic minority groups: Results from the MRC AESOP Study. *Psychological Medicine*, 36(11), 1541-1550.

Fernando, S. (1997). Peeling labels. *OpenMind*, 87, 16-17.

Fournier, D., & Smith, N. (1993). Clarifying the merits of argument in evaluation practice. *Evaluation and Program Planning*, 16(4), 315-323.

Freeman, D. (2006). Delusions in the non-clinical population. *Current Psychiatry Reports*, 8(3), 191–204.

Freeman, D., & Bentall, R. P. (2017). The concomitants of conspiracy concerns. *Social Psychiatry and Psychiatric Epidemiology*, 52(5), 595–604.

Freeman, D., & Garety, P. (2014). Advances in understanding and treating persecutory delusions: A review. *Social Psychiatry and Psychiatric Epidemiology*, 49(8), 1179-1189.

Freeman, D., Garety, P. A., Bebbington, P. E., Smith, B., Rollinson, R., Fowler, D., . . . Dunn, G. (2005). Psychological investigation of the structure of paranoia in a non-clinical population. *British Journal of Psychiatry*, 186(5), 427-435.

Freeman, D. (2006). Delusions in the non-clinical population. *Current Psychiatry Reports*, 8(3), 191–204.

Fricker, M. (2007). *Epistemic Injustice: Power and the ethics of knowing*. Oxford: Oxford University Press.

Fulford, K. W. (1991). Evaluative *delusions*: Their significance for philosophy and psychiatry. *The British Journal of Psychiatry*, 159(14), 108–112.

Gaines, A. D. (1995). Culture-specific delusions: Sense and nonsense in cultural context. *Psychiatric Clinics of North America*, 18(2), 281–301.

Garety, P. A., & Freeman, D. (1999). Cognitive approaches to delusions: A critical review of theories and evidence. *British Journal of Clinical Psychology*, 38(2), 113–154.

Georgaca, E. (2000). Reality and discourse: A critical analysis of the category of 'delusions'. *British Journal of Medical Psychology*, 73(2), 227–42.

Georgaca, E. (2004). Factualization and plausibility in 'delusional' discourse. *Philosophy, Psychiatry & Psychology*, 11(1), 13–23.

Gergen, K. J. (1985). The social constructionist movement in modern psychology, *American Psychologist*, 40(3), 266–275.

Gilleen, J., & David, A. S. (2000). The cognitive neuropsychiatry of delusions: From psychopathology to neuropsychology and back again. *Psychological Medicine*, 35(1), 5–12.

Gillett, G. (1994). Insight, delusion and belief. *Philosophy, Psychiatry, & Psychology*, 1(4), 227–236.

Gipps, R. G. T., & Fulford, K. W. M. (2004). Understanding the clinical concept of delusion: From an estranged to an engaged epistemology. *International Review of Psychiatry*, 16(3), 225–235.

Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology*, 15(4), 731–742.

Grier, W. H., & Cobbs, P. M. (1968). *Black rage*. New York: Basic Books.

Gunn, R., & Bortolotti, L. (2018). Can delusions play a protective role? *Phenomenology and the Cognitive Sciences*, 17(4), 813–833.

Guttman, L. (1954). A New Approach to Factor Analysis: The Radex. In P. F. Lazarsfeld (Eds.), *Mathematical Thinking in the Social Sciences* (pp. 258–348). New York: Free Press.

Hall, P. M., & Hewitt, J. P. (1970). The quasi-theory of communication and the management of dissent. *Social Problems*, 18(1), 17–27.

Hallin, D. C. (1986). *The uncensored war: The media and Vietnam*. Berkeley, CA: University of California Press.

Harambam, J., & Aupers, S. (2017). 'I am not a conspiracy theorist': Relational identifications in the Dutch conspiracy milieu. *Cultural Sociology*, 11(1), 113–129.

Harland, R., Antonova, E., Owen, G. S., Broome, M., Landau, S., Deeley, Q., & Murray, R. (2009). A study of psychiatrists' concepts of mental illness. *Psychological Medicine*, 39(6), 967-976.

Harper, D. J. (1994). The professional construction of 'paranoia' and the discursive use of diagnostic criteria. *British Journal of Medical Psychology*, 67(2), 131-43.

Harper, D. J. (1996). Deconstructing 'paranoia': Towards a discursive understanding of apparently unwarranted suspicion. *Theory & Psychology*, 6(3), 423-48.

Harper, D. J. (1999). *Deconstructing paranoia: An analysis of the discourses associated with the concept of paranoid delusion*. Unpublished doctoral dissertation: Manchester Metropolitan University, Manchester.

Harper, D. J. (2004). Delusions and discourse: Moving beyond the constraints of the rationalist paradigm. *Philosophy, Psychiatry & Psychology*, 11(1), 55-64.

Harper, D. J. (2011a). The social context of 'paranoia'. In M. Rapley, J. Dillon & J. Moncrieff (Eds.), *De-Medicalising Misery* (pp. 53-65). London: Palgrave Macmillan.

Harper, D. J. (2011b). Social inequality and the diagnosis of paranoia. *Health Sociology Review*, 20(4), 420-433.

Harper, D. J. (2014). Psychiatric diagnosis and its dilemmas. In K. Partridge & S. McNab (Eds.), *Inside out/outside in: Creative positions in adult mental health* (pp. 5-23). London: Karnac.

Heise, D. R. (1988). Delusions and the construction of reality. In T. F. Oltmanns, & B. A. Maher (Eds.), *Delusional beliefs* (pp. 259-272). New York: Wiley.

Hofstadter, R. (1966). *The paranoid style in American politics and other essays*. Cambridge, Massachusetts: Harvard University Press.

Imhoff, R., & Bruder, M. (2014). Speaking (un-)truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality*, 28(1), 25-43.

Imhoff, R., & Lamberty, P. (2018). How paranoid are conspiracy believers? Toward a more fine-grained understanding of the connect and disconnect between paranoia and belief in a conspiracy theories. *European Journal of Social Psychology*, 48(7), 909-926.

Ingleby, D. (1982). The social construction of mental illness. In P. Wright & A. Treacher (Eds.), *The problem of medical knowledge: Examining the social construction of medicine* (pp. 123–143). Edinburgh, UK: Edinburgh University Press.

Jensen, T. (2013). Democrats and Republicans differ on conspiracy theory beliefs. Retrieved from <https://www.publicpolicypolling.com/polls/democrats-and-republicans-differ-on-conspiracy-theory-beliefs/>

Johns, L. C. (2005). Hallucinations in the general population. *Current Psychiatry Reports*, 7(3), 162–167.

Jolley, D., & Douglas, K. M. (2014a). The social consequences of conspiracism: Exposure to conspiracy theories decreases intentions to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology*, 105(1), 35–56.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141–151.

Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35(4), 401–415.

Kamal, S., Kocór, M., & Grodzińska-Jurczak, M. (2014). Quantifying human subjectivity using Q method: When quality meets quantity. *Qualitative Sociology Review*, 3(3), 61-79.

Karlsen, S., & Nazroo, J. Y. (2002). Relation between racial discrimination, social class and health among ethnic minority groups. *American Journal of Public Health*, 92(4), 624-31.

Kay, J. (2011). *Among the Truthers: A journey through America's growing conspiracist underground*. Toronto: Harper Collins.

Kinderman, P., & Bentall, R. P. (1997). Causal attributions in paranoia and depression: Internal, personal and situational attributions for negative events. *Journal of Abnormal Psychology*, 106(2), 341–345.

King, M., Coker, E., Leavey, G., Hoare, A., & Johnson-Sabine, E. (1994). Incidence of psychotic illness in London: Comparison of ethnic groups. *British Medical Journal*, 29(309), 1115-1119.

Kirk, S. A., & Kutchins, H. (1992). *The selling of DSM: The rhetoric of science in psychiatry*. New York: Aldine de Gruyter.

Kirk, S. A., & Kutchins, H. (1994). The myth of the reliability of DSM. *Journal of Mind and Behavior*, 15(2), 71–86.

Kitzinger, C. (1999). Research subjectivity and diversity: Q-methodology in feminist psychology. *Psychology of Women Quarterly*, 23(2), 267–276.

Kutchins, H., & Kirk, S. A. (1999). *Making us crazy: DSM – The psychiatric bible and the creation of mental disorders*. London: Constable.

Kvaale, E., Gottdeiner, W., & Haslam, N. (2013). Biogenetic explanations and stigma: A meta-analytical review of associations among laypeople. *Social Science and Medicine*, 96, 95–103.

Lamberty, P., & Imhoff, R. (2018). Powerful pharma and its marginalized alternatives? Effects of individual differences in conspiracy mentality on attitudes toward medical approaches. *Social Psychology*, 49(5), 255–270.

Lantian, A., Muller, D., Nurra, C., Klein, O., Berjot, S., & Pantazi, M. (2018). Stigmatized beliefs: Conspiracy theories, anticipated negative evaluation of the self, and fear of social exclusion. *European Journal of Social Psychology*, 48(7), 939-954.

Lasègue, C., & Falret, J. (1877). La folie à deux. *Annales Medico-psychologiques*, 18(4). 321– 355.

Lemert, E. M. (1962). Paranoia and the dynamics of exclusion. *Sociometry*, 25(1), 2–20.

Lemert, E. M. (1967). *Human deviance, social problems, and social control*. New Jersey: Prentice Hall.

Lewandowsky, S., Oberauer, K., & Gignac, G. E. (2013). NASA faked the moon landing—therefore, (climate) science is a hoax: An anatomy of the motivated rejection of science. *Psychological Science*, 24(5), 622–633.

Loring, M., & Powell, B. (1988). Gender, race, and DSM-III: A study of the objectivity of psychiatric diagnostic behaviour. *Journal of Health and Social Behavior*, 29(1), 1–22.

Lukoff, D., Lu, F., & Turner, R. (1992). Toward a more culturally sensitive DSM-IV: Psychoreligious and psychospiritual problems. *Journal of Nervous and Mental Disease*, 180(11), 673–682.

Maher, B. A. (1992). Delusions: Contemporary etiological hypotheses. *Psychiatric Annals*, 22(5), 260-268.

Maher, B. A. (2001). Delusions. In P. B. Sutker & H. E. Adams (Eds.), *Comprehensive handbook of psychopathology* (pp. 309–339). New York: Kluwer Academic/Plenum Publishers.

Mason, J. (2002). *Qualitative Researching* (2nd ed.). London: Sage Publications.

May, R. (2012). Relating to alternative realities. In M. Romme & S. Escher (Eds.), *Psychosis as a personal crisis: An experience-based approach* (pp.140-152). London: Routledge.

McCabe, R. (2004). On the inadequacies of theory of mind explanations of schizophrenia: Alternative accounts of alternative problems. *Theory & Psychology*, 14(5), 738-752.

McCabe, R., Leudar, I., & Antaki, C. (2004). Do people with schizophrenia display theory of mind deficits in clinical interactions? *Psychological Medicine*, 34(3), 401-412.

McCabe, R., & Priebe, S. (2008). Communication and psychosis: It's good to talk, but how? *British Journal of Psychiatry*, 192(6), 404-405.

McKenzie, L. (2015). *Getting by: Estates, class and culture in austerity Britain*. Bristol, UK: Policy Press.

McKenzie-McHarg, A., & Fredheim, R. (2017). Cock-ups and slap-downs: A quantitative analysis of conspiracy rhetoric in the British Parliament 1916–2015. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 50(3), 156-169.

McKeown, B., & Thomas, D. (2013). *Q Methodology* (2nd ed.). Newbury Park, CA: Sage Publications.

Mirowsky, J., & Ross, C. E. (1983). Paranoia and the structure of powerlessness. *American Sociological Review*, 48(2), 228– 239.

Mojtabai, R., & Nicholson, R. A. (1995). Interrater reliability of ratings of delusions and bizarre delusions. *The American Journal of Psychiatry*, 152(12), 1804-1806.

Moore, P. (2016). Little British belief in outlandish conspiracy theories [YouGov]. Retrieved from <https://yougov.co.uk/news/2016/05/27/conspiracies/>

Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291–310.



Nordt, C., Rössler, W., & Lauber, C. (2006). Attitudes of mental health professionals towards people with schizophrenia and major depression. *Schizophrenia Bulletin* 32(4), 709–714.

O'Connor, S., & Vandenberg, B. (2005). Psychosis or faith? Clinicians' assessment of religious beliefs. *Journal of Consulting and Clinical Psychology*, 73(4), 610-616.

O'Connor, S., & Vandenberg, B. (2010). Differentiating psychosis and faith: the role of social norms and religious fundamentalism. *Mental Health, Religion & Culture*, 13(2), 171-186.

Oliver, J. E., & Wood, T. J. (2014). Conspiracy theories and the paranoid style(s) of mass opinion. *American Journal of Political Science*, 58(4), 952-966.

Oltmanns, T. F. (1988). Approaches to the definition and study of delusions. In T. F. Oltmanns & B. A. Maher (Eds.), *Delusional beliefs* (pp. 3–12). New York: Wiley.

Orr, M., & Husting, G. (2018). Media Marginalization of Racial Minorities: "Conspiracy Theorists" in U.S. Ghettos and on the "Arab Street". In J. E. Uscinski (Eds.), *Conspiracy theories and the people who believe them* (pp. 82-93). New York: Oxford University Press.

Parker, I., Georgaca, E., Harper, D., McLaughlin, T., & Stowell-Smith, M. (1995). *Deconstructing psychopathology*. London: Sage Publications.

Patton, M. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Peters, E. R., Joseph, S. A., & Garety, P. A. (1999a). Measurement of delusional ideation in the normal population: Introducing the PDI (Peters et al. delusions inventory). *Schizophrenia Bulletin*, 25(3), 553-576.

Peters, E. R., Joseph, S. A., & Garety, P. A. (1999b). Delusional ideation in religious and psychotic populations. *The British Journal of Clinical Psychology*, 38(1), 83-96.

Peters, E. R., Joseph, S. A., Day, S., & Garety, P. A. (2004). Measuring delusional ideation: The 21-Item Peters et al. delusions inventory (PDI). *Schizophrenia Bulletin*, 30(4), 1005–1022.

Pipes, D. (1997). *Conspiracy: How the paranoid style flourishes and where it comes from*. New York: The Free Press.

Prescott-Smith, S. (2020). Most Brits think Covid-19 originated in live animal markets [Yougov]. Retrieved from

<https://yougov.co.uk/topics/health/articles-reports/2020/04/12/most-brits-think-covid-19-originated-live-animal-m>

Räikkä, J., & Basham, L. (2018). Conspiracy theory phobia. In J. E. Uscinski (Eds.), *Conspiracy theories and the people who believe them* (pp. 178–186). New York: Oxford University Press.

Ramlo, S. (2016). Mixed method lessons learned from 80 years of Q methodology. *Journal of mixed methods research*, 10(1), 28-45.

Read, J., & Dillon, J. (2013). *Models of madness* (2<sup>nd</sup> ed.). London: Routledge.

Rhodes, J. & Jakes, S. (2009). *Narrative CBT for psychosis*. London: Routledge.

Roberts, G. (1991). Delusional belief systems and meaning in life: A preferred reality? *British Journal of Psychiatry*, 159(14), 19– 28.

Rogers, A., & Pilgrim, D. (2003). *Mental health and Inequality*. Basingstoke: Palgrave MacMillan.

Rogers, A., & Pilgrim, D. (2014). *A sociology of mental health and illness* (5<sup>th</sup> ed.). Berkshire, UK: Open University Press.

Rogers de Waal, J. F. (2015). Are conspiracy theories for (political) losers? [Yougov]. Retrieved from <https://yougov.co.uk/news/2015/02/13/are-conspiracy-theories-political-losers/>

Rogler, L. H. (1993). Culture in psychiatric diagnosis: An issue of scientific accuracy. *Psychiatry*, 56(4), 324-327.

Rosenhan, D. L. (1973). On being sane in insane places. *Science*, 179(4070), 250-258.

Rüsch, N., Angermeyer, M. C., & Corrigan, P. W. (2005). Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry*, 20(8), 529–539.

Saeed Bashatah, L. (2016). Q-methodology: What and how? *Journal of Research & Method in Education*, 6(5), 37-43.

Samory, M., & Mitra, T. (2018). ‘The government spies using our webcams’: The language of conspiracy theories in online discussions. *Proceedings of the ACM on Human-Computer Interaction*, 2(152), 1-24.

Sanati, A., & Kyratsous, M. (2015). Epistemic injustice in assessment of delusions. *Journal of Evaluation in Clinical Practice*, 21(3), 479-485.

Scharfetter, C. (1980). *General psychopathology: An introduction* (H. Marshall, Trans.). Cambridge, UK: Cambridge University Press. (Original work published 1976).

Schmolck, P. (2002). PQMethod (version 2.11) [computer software]. Retrieved from <http://schmolck.org/qmethod/>

Schwartz, R. C., & Blankenship, D. M. (2014). Racial disparities in psychotic disorder diagnosis: A review of empirical literature. *World Journal of Psychiatry*, 4(4), 133-140.

Scrutton, A. P. (2015a). Interpretation, meaning, and the shaping of experience: Against depression being a natural entity and other forms of essentialism. *Philosophy, Psychiatry & Psychology*, 22(4), 299-301.

Scrutton, A. P. (2015b). 'Is depression a sin or a disease?' A critique of moralising and medicalising models of mental illness, *Journal of Religion and Disability*, 19(4), 285–311.

Seale, C. (2007). Quality in qualitative research. In C. Seale, G. Gobo, J. Gubrium & D. Silverman (Eds.), *Qualitative research practice* (pp. 139-153). London: Sage Publications.

Slavin, R. E. (1995). Best evidence synthesis: An intelligent alternative to meta-analysis. *Journal of Clinical Epidemiology*, 48, 9–18.

Smallpage, S. M. (2018). Conspiracy thinking, tolerance, and democracy. In J. E. Uscinski (Eds.), *Conspiracy theories and the people who believe them* (pp. 187–200). New York: Oxford University Press.

Social Exclusion Unit (2004). Mental Health and Social Exclusion: Social Exclusion Unit Report. Retrieved from [https://www.centreformentalhealth.org.uk/sites/default/files/mental\\_health\\_and\\_social\\_exclusion.pdf](https://www.centreformentalhealth.org.uk/sites/default/files/mental_health_and_social_exclusion.pdf)

Social Surveys/Gallup Poll Ltd. (1995). Paranormal behaviour. *Gallup Political Index*, 415, 24.

Sparkman, R. (2012). *They call me crazy: Factors to conspiratorial participation* (Unpublished MA Dissertation). Marshall University: West Virginia, USA.

Spencer, L., & Ritchie, J. (2012). In pursuit of quality. In D. Harper & A. R. Thompson (Eds.), *Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners* (pp. 225-242). London: Wiley.

Spitzer, M. (1990). On defining delusions. *Comprehensive Psychiatry*, 31(5), 377-397.

Stainton Rogers, W. (1991). *Explaining health and illness: An exploration of diversity*. New Jersey: Prentice-Hall.

Stainton Rogers, R. (1995). Q methodology. In J. A. Smith, R. Harre, & I. Van Langenhove (Eds.), *Rethinking methods in psychology* (pp. 178-192). Thousand Oaks, CA: Sage Publications.

Stenner, P., Cooper, D., & Skevington, S.M. (2003). Putting the Q into quality of life; the identification of subjective constructions of health-related quality of life using Q methodology. *Social Science and Medicine*, 57(11), 2161 - 2172.

Stephenson, W. (1953). *The study of behaviour: Q technique and its methodology*. Chicago: The University of Chicago Press.

Sunstein, C. R., & Vermeule, A. (2009). Conspiracy theories: Causes and cures. *The Journal of Political Philosophy*, 17(2), 202–227.

Sutton, R. M., & Douglas, K. M. (2014). Examining the monological nature of conspiracy theories. In J. W. van Prooijen & P. A. M. van Lange (Eds.), *Power, politics, and paranoia: Why people are suspicious of their leaders* (pp. 254–272). Cambridge, UK: Cambridge University Press.

Swami, V., Coles, R., Stieger, S., Pietschnig, J., Furnham, A., Rehim, S., & Voracek, M. (2011). Conspiracist ideation in Britain and Austria: Evidence of a monological belief system and associations between individual psychological differences and real-world and fictitious conspiracy theories. *British Journal of Psychology*, 102(3), 443–463.

Swami, V., Voracek, M., Stieger, S., Tran, U. S., & Furnham, A. (2014). Analytic thinking reduces belief in conspiracy theories. *Cognition*, 133(3), 572–585.

Thorburn, S., & Bogart, L. M. (2005). Conspiracy beliefs about birth control: Barriers to pregnancy prevention among African Americans of reproductive age. *Health Education and Behaviour*, 32(4), 474-487.

Thornicroft, G., Rose, D., Kassam, A., & Sartorius, N. (2007). Stigma: Ignorance, prejudice or discrimination? *The British Journal of Psychiatry*, 190(3), 192-193.

Uscinski, J. E., & Parent, J. M. (2014). *American conspiracy theories*. Oxford: Oxford University Press.

- Van Exel, N. J. A., & de Graaf, G. (2005). Q methodology: A Sneak Preview. Retrieved from <https://qmethodblog.files.wordpress.com/2016/01/qmethodologyasneakpreviewreferenceupdate.pdf>
- van Prooijen, J. W., & Douglas, K. M. (2018). Belief in conspiracy theories: Basic principles of an emerging research domain. *European Journal of Social Psychology*, 48(7), 897-908.
- van Prooijen, J. W., & van Lange, P. A. M. (2014). The social dimension of belief in conspiracy theories. In J. W. van Prooijen & P. A. M. van Lange (Eds.), *Power, politics, and paranoia: Why people are suspicious of their leaders* (pp. 237–253). Cambridge, UK: Cambridge University Press.
- van Prooijen, J. W., Douglas, K. M., & De Inocencio, C. (2018). Connecting the dots: Illusory pattern perception predicts belief in conspiracies and the supernatural. *European Journal of Social Psychology*, 48(3), 320-335.
- Watts, S. & Stenner, P. (2005). Doing Q methodology: theory, method and interpretation. *Qualitative Research in Psychology*, 2(1), 67-91.
- Weeks, D., & James, J. (1997). *Eccentrics*. London: Phoenix Publishing House.
- Westermeyer, J., & Kroll, J. (1978). Violence and mental illness in a peasant society: Characteristics of violent behaviours and "folk" use of restraints. *The British Journal of Psychiatry*, 133(6), 529–541.
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322(5898), 115–117.
- Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in Qualitative Research. *Qualitative Health Research*, 11(4), 522-537.
- Willig, C. (2008). *Introducing qualitative research in psychology* (2nd ed.). Berkshire, UK: Open University Press.
- Wilson, P., & Cooper, C. (2008). Finding the magic number. *The Psychologist*, 21(10), 866-867.
- Wood, M. J. (2016). Some dare call it conspiracy: Labelling something a conspiracy theory does not reduce belief in it. *Political Psychology*, 37(5), 695–705.
- Wood, M. J., Douglas, K. M., & Sutton, R. M. (2012). Dead and alive: Beliefs in contradictory conspiracy theories. *Social Psychological and Personality Science*, 3(6), 767–773.

World Health Organization. (1992). The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines. Geneva, Switzerland: World Health Organization.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health*, 15(2), 215-228.

Zabala, A., Sandbrook, C., & Mukherjee, N. (2017). When and how to use Q methodology to understand perspectives in conservation research. *The Journal of the Society for Conservation Biology*, 32(5), 1185-1194.

Zander, E., Wyder, L., Holtforth, M. G., Schnyder, U., Hepp, U., & Stulz, N. (2018). Validity of routine clinical diagnoses in acute psychiatric inpatients. *Psychiatry Research*, 259, 482–487.

Zangrilli, A., Ducci, G., Bandinelli, P. L., Dooley, J., McCabe, R., & Priebe, S. (2014). How do psychiatrists address delusions in first meetings in acute care? A qualitative study. *BMC Psychiatry*, 14(1), 178.

## Appendix A – Glossary of Key Q methodology Terms

<b>Q-Methodology</b>	Q-methodology is a mixed-method design and so incorporates both qualitative and quantitative techniques. Within Q-methodology, participants are applied to a sample of statements (the Q-set). Q-methodology is concerned with measuring how the statements in the Q-set are rated in similar ways by different participants. Different accounts or narratives are thus interpreted by analysing the Q-sorts, and demonstrating similar ways of understanding or conceptualising the topic under investigation.
<b>Concourse</b>	The hypothetical full range of viewpoints that there may be about a particular topic.
<b>Q-Set</b>	This refers to the series of statements that are rated by participants.
<b>Q-Sort</b>	When all of the statements in the Q-set have been arranged according to the fixed quasi-normal distribution layout, the finished product is referred to as the Q-sort.
<b>Q Study</b>	A study employing Q-methodology.
<b>Sort</b>	The process by which participants rank a series of statements in terms of how much they agreed or disagreed with them.
<b>Quasi-Normal Distribution</b>	A quasi-normal distribution refers to the arrangement of how the statements in the Q-set are sorted. The distribution ranges according to how much the participant agrees or disagrees with a statement. In a quasi-normal distribution there are a limited number of places for the statements that are most agreed or disagreed with.

<b>R-methodology</b>	R-methodology refers to the traditional psychometric paradigm of applying a set of items or tests to a sample of participants to be analysed.
<b>PQMethod</b>	This a Q-methodology computer programme designed to enter and then analyse the data gathered from Q-sorts.
<b>Characterising Statement</b>	A statement that is at one of the extreme ends of the factor array, i.e. a statement that is strongly agreed or disagreed with. They are shown by the PQMethod computer package.
<b>Factors</b>	Q analysis reduces the many participant viewpoints to a few "factors," which are suggested to represent collective ways of thinking about the particular topic. Factors (onto which participants load based on the Q-sort configurations they produce) are represented by all of the presented items configured in different but characteristic ways.



## Appendix B – The Concourse for Each Research Question

### **First Q-Set**

*How do individuals identify certain beliefs to be conspiracy beliefs and the people who believe them to be conspiracy believers?*

### **THEME- Topics**

- Conspiracy theories tend to involve suspicion about the government and the official explanations of events
- Some conspiracy theories view governments or officials as the group behind particular plots
- Some conspiracy theories view a historically marginalised group (e.g. Jews, Catholics, Muslims etc.) as behind particular plots
- Conspiracy theorists seem to have greater distrust of authority
- Conspiracy believers tend to think there are exotic technologies like mind control via TV or phenomena like flying saucers etc.
- Conspiracy believers may believe that certain people have been cloned (e.g. Meghan Markle)
- Conspiracy theorists may believe that people are not dead (e.g. Elvis) or have been assassinated
- Some conspiracy theories can be more commonplace, such as the belief that the rich get richer
- Conspiracy theories are often about groups trying to cover-up something that has happened

### **THEME- Textual form of conspiracy narratives**

- Conspiracy theories can involve linking a whole series of world events together as something planned
- Conspiracy beliefs hold that there are secret patterns in the world
- Conspiracy theories occur when there is confusion and ambiguity, or contradictory information about events
- Conspiracy theories can be about one off events

- Conspiracy theorists believe that they have privileged access to secret knowledge that separates them from the masses who believe the official account
- Conspiracy theorists think that there is a deeper truth behind the visible reality

### **THEME - 'Cock-up' or conspiracy view of history**

- Conspiracy theorists tend to subscribe to the idea that history is the result of conspiracies rather than coincidences, confusion and mistakes
- Conspiracy theorists tend to assume there is one all-encompassing explanation for an event whereas in real conspiracies, there are often multiple plots which often go wrong or eventually come out
- Conspiracy theorists tend to assume that there are all-powerful and all-knowing but secret groups of plotters
- Conspiracy theories tend to view history as due to the co-ordinated actions of small groups rather than more abstract forces like economics or politics

### **THEME - Involving plotters**

- Conspiracy theories tend to involve a small group of conspirators acting in secret who manipulate events
- Conspiracy theories tend to involve a group acting in a way that serves their interests but is against the interests of the majority of people.

### **THEME - CTs and logic/science**

- Conspiracy theories often involve some accepted facts but then make a big leap of faith to reach conclusions that aren't really supported by the facts.
- Conspiracy theories often provide one explanation where there are a number of equally plausible explanations.
- Conspiracy theories are often very elaborate and complicated
- Conspiracy believers do not listen to reason
- Conspiracy theories do not have any definitive proof and so it is hard to disprove them
- Conspiracy theories may have a kernel of truth within them
- Conspiracy theories are often couched in pseudo-scientific language

- Conspiracy theorists confuse the fact that we can never be 100% certain of something with the idea that any explanation is plausible
- Conspiracy theories can sometimes be only believed by a few people but others are believed quite widely

### **THEME - Features of believers**

- Conspiracy theorists tend to see those who disagree with them as hoodwinked or deluded
- People use the term 'conspiracy theorist' as a way of undermining a view they disagree with
- Conspiracy theorists often ridicule researchers/journalists for not accepting their theories
- Conspiracy theorists are more likely to question the mainstream media than others
- Conspiracy theorists will always adapt their theory when any contradictory evidence arises and so it is hard to disprove them
- Conspiracy believers spend a lot of time reading about conspiracies on the internet
- Conspiracy theorists tend to reinforce each other's ideas and do not want to hear alternative explanations
- Conspiracy theorists believe that nothing happens by accident
- Conspiracy believers tend to reinforce each other's ideas
- People avoid talking to conspiracy theorists because they are so obsessed with conspiracies
- People enjoy talking to conspiracy theorists because their theories are interesting
- Conspiracy theorists take scepticism of official accounts too far
- Conspiracy theories are generally only believed in by a minority of the population

### **THEME- Causes/effects as possible defining features**

- Conspiracy theories happen because people have become disenchanted with the mainstream of politics.
- Conspiracy theorists think big events can't be due to mundane causes

- Conspiracy theories help conspiracy theorists to feel they are 'in the know'
- Conspiracy theories can have negative consequences (e.g. affecting whether you will vaccinate or whether a particular group should be vilified).
- Conspiracy theories undermine democracy because they lead to an exaggerated suspicion of others
- Conspiracy theories can lead to some groups of society being treated badly
- Conspiracy theories are generally harmless
- Conspiracy theories have a bad reputation but there have been some well documented conspiracies
- Conspiracy theories can be quite interesting
- Conspiracy theories can be fun and entertaining
- Conspiracy theories are the price we pay for the existence of healthy scepticism in a society

### **Second Q-Set**

*What factors of a conspiratorial belief (i.e. a 'conspiracy theory') make it seem implausible to you?*

#### **THEME – Negative representations of those who hold these beliefs**

- Conspiratorial beliefs are less likely to seem plausible if they are held by people with a lower IQ
- Conspiratorial beliefs are less likely to seem plausible if they are held by people who are more socially isolated
- Conspiratorial beliefs are less likely to seem plausible if they are held by people with poor social skills
- Conspiratorial beliefs are less likely to seem plausible if they are held by people who have mental health difficulties
- Conspiratorial beliefs seem less plausible when they are presented by people who seem gullible or naïve
- Conspiratorial beliefs seem less plausible when they are endorsed by people who seem a bit eccentric or odd

- Conspiracy theories are less believable when they are held by a group that you are not part of
- Conspiracy beliefs become less plausible when the speaker is unable to clearly articulate their rationale or their evidence for believing
- Conspiracy theories are less believable the theorist is extremely and indiscriminately suspicious of any and all government agencies or private organizations.
- Conspiracy theories seem more implausible when they are endorsed by someone who is politically radical
- Conspiratorial beliefs seem less plausible when they are held by people considered to be somewhat paranoid

### **THEME – Social Group of a Speaker**

- Conspiracy theories are more likely to appear credible when they are presented by a clear and concise speaker
- Conspiracy theories are more likely to appear believable when the person presenting them belongs to a similar social group to you
- Conspiracy theories are more believable when they are endorsed by someone who is well educated
- Conspiracy theories are less credible when they are held by someone from a different ethnic or cultural group
- Conspiracy theories are more credible when they are held by someone who is rich and powerful
- Conspiracy theories are less believable when they are held by a group that you are not part of
- Conspiracy theories are less believable when they are endorsed by people from lower social classes
- Conspiracy beliefs seem much more plausible when celebrities and other popular figures hold them
- Conspiratorial theories seem more plausible if the person who is delivering the evidence is very forceful or strong in their expression of the theory

### **THEME – Motivators**

- Conspiracy theories seem more believable when they fit with our pre-existing political views
- Conspiracy theories seem more believable when they are endorsed by someone in authority who is speaking against their direct interests
- Conspiracy beliefs seem less plausible when there is a clear motivation behind someone holding that belief

### **THEME – Volume of Evidence**

- Conspiracy theories are more plausible when a lot of people endorse them
- Conspiracy theories are less plausible when no one you know believes them
- Conspiratorial theories are more plausible when there is a lot of evidence to suggest that they could be true
- Conspiratorial beliefs become more believable when you hear them regularly
- Conspiratorial beliefs become more believable when people in your friendship group or family also believe them
- Conspiratorial theories are less plausible when you are aware of strong contradictory evidence
- Conspiracy theories become more credible when they have been around for a long time and not gone away

### **THEME – Source**

- Conspiracy theories seem more believable when they are documented on the internet
- Conspiracy theories can be plausible when they seem to be backed by some evidence, e.g. the correlation between vaccinations can cause autism
- Conspiracy theories are more believable when there is a scientific component to them
- Conspiratorial beliefs seem less believable when they are directly challenged by a powerful authority
- Conspiracy theories seem credible when there is a lot of public knowledge and evidence to support them

- Conspiratorial beliefs appear less credible when a lot of different authority figures are presenting contradictory evidence
- Conspiracy theories are more credible when alternative perspectives have also been taken into account

### **THEME – Characteristics of the Conspiracy**

- Conspiracy beliefs are less plausible when the explanation can also be explained by something more rational
- Conspiratorial theories are less believable when they are overly complex
- Conspiracy theories become less reliable when they would involve a large number of people who would all need to keep quiet about their secrets
- Conspiracy beliefs are more believable if they fit in with something that we have experienced in the past
- Conspiracy beliefs feel more plausible when they sound intuitively correct
- Conspiracy beliefs are considered to be less plausible when they are based more in the realms of just faith, rather than something that could potentially be proved
- A conspiratorial theory is less likely to be considered valid if it relates to something that we have not had direct experience of or have seldom encountered before

## Appendix C –Q-Sets One and Two

### Q-Set One

1. Conspiracy believers spend a lot of time reading about conspiracies on the internet
2. Conspiracy beliefs assume that conspirators act in secret
3. Conspiracy beliefs can be fun and entertaining
4. People enjoy talking to conspiracy believers
5. Conspiracy beliefs assume that events are caused by large groups of conspirators acting independently
6. Conspiracy beliefs are logical and rational
7. Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)
8. Conspiracy believers think that the media routinely expose conspiracy theories
9. Conspiracy believers distrust academic researchers and scientists
10. Conspiracy believers think that all important information is being shared with the public
11. The conspirators in conspiracy beliefs are often powerful elites
12. The conspirators in conspiracy beliefs are often governments or officials
13. The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)
14. Conspiracy beliefs take accepted facts but then make a big leap of faith to reach conclusions that aren't supported by the facts.
15. Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems
16. Conspiracy beliefs assume that conspirators manipulate events to serve their own interests
17. Conspiracy believers do not believe that there is an intentional plan behind world events
18. Conspiracy believers believe that they are the only ones who understand 'what is really going on'
19. Conspiracy beliefs are so complex that it can be hard to definitively disprove them



20. Conspiracy believers think that all politicians and officials are corrupt
21. The conspirators in conspiracy beliefs do not typically involve intelligence agencies
22. Conspiracy beliefs can have serious negative consequences, such as parents not vaccinating their children
23. A lot of people believe in conspiracies
24. Conspiracy beliefs lead to some groups of society being treated badly
25. Conspiracy believers see those who disagree with them as hoodwinked or deluded
26. People use the term 'conspiracy theorist' as a way of undermining a view they disagree with
27. Conspiracy believers assume that there is only one explanation for an event when, in fact, there are a number of equally plausible explanations
28. Conspiracy believers think that there are no hidden connections or patterns behind world events
29. Conspiracy beliefs have caused a destructive level of mistrust in society
30. Conspiracy believers interpret facts to fit their predetermined theory
31. Conspiracy beliefs are based on evidence, rather than innuendo and suspicion
32. Conspiracy believers reinforce each other's ideas
33. Conspiracy beliefs prevent elites from gaining too much power
34. Conspiracy believers are happy to change their belief when they are presented with evidence which challenges it

#### Q-Set Two

1. When a majority of academic researchers and scientists endorse the belief
2. When the believer is very sociable and has lots of friends
3. When the belief appears to be hypothetically possible
4. When the believer is highly educated
5. When the evidence for and against the belief is confusing
6. When the believer seems indiscriminately suspicious
7. When the believer is from a different social group (cultural, ethnic, religious, political etc.) to you

8. When the belief seems to involve jumping to a particular conclusion not supported by the evidence
9. When most people you know don't believe it
10. When the belief pins the blame for something on an identifiable group of people rather than something more abstract
11. When the conspiracy would have required lots of different people to co-operate
12. When someone you think is credible believes it
13. When the belief is based on several different independent sources of evidence
14. When the believer will change their mind in light of evidence which contradicts the belief
15. When the believer seems to spend a lot of time on conspiracy websites
16. When official sources (e.g. government reports) do not support it
17. When the believer does not seem gullible or naïve
18. When the belief is presented in an incoherent and hard to follow manner
19. When the belief is supported by a whistleblower who has had access to secret information
20. When the believer only seems to talk to people who agree with them
21. When experts seem to disagree about the belief
22. When the believer is not obsessed by the belief
23. When the belief seems to be the simplest explanation of the evidence
24. When the believer can provide persuasive evidence for it
25. When the believer seems eccentric or odd
26. When the believer seems to be open-minded about alternative explanations when they weigh up the evidence
27. When the conclusions reached seem to go beyond the evidence
28. When you are aware of strong evidence which contradicts the belief
29. When the belief fits with my own political views
30. When the believer appears to have mental health difficulties
31. When the belief seems to be based on opinion rather than fact
32. When the argument for a belief seems circular
33. When the belief doesn't involve making too many assumptions
34. When the belief just seems intuitively right
35. When the believer does not get overly emotional about the belief

- 36. When the believer only cites evidence which supports their belief and does not mention anything which might contradict it
- 37. When the belief seems to be unquestioned within the believer's social group

## Appendix D – Detailed Description of the Methodology

All participants were presented with Q set one first, with the first research question written on the top of the screen in bold writing. For each Q set, the sorting process was split into two parts. The aim of the first part of the sorting process was to help the participants begin to think about their responses to the statements, and to begin to categorise them in terms of how much they agreed or disagreed with them. In this part of the sorting process, therefore, participants were shown each of the individual statements on the centre of the screen, one at a time. Underneath the statement were three columns, labelled: 'I agree with this statement about conspiracy beliefs', 'neutral' and 'I disagree with this statement about conspiracy beliefs'. Participants were asked to place each of the statements into one of these three columns (See Figure One for a visual depiction of this).

*Figure One:* Visual illustration of the three columns shown to participants within the first stage of the sorting process

The screenshot displays a web-based interface for a study. At the top, a header bar reads "Study / Step 1 of 2...". Below this, a text box contains instructions: "We would like to understand how you understand certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is Q-sort 1, part A. You will be presented with 34 statements. Please drag each statement into one of the three columns below, whilst keeping the statement above in mind. Please consider each statement carefully, as they may be phrased in the opposite manner to which you might expect." Below the instructions, a prompt says "Drag the following item into one of the boxes below:". The main area features three columns under the heading "Conspiracy beliefs assume that conspirators act in secret". The columns are labeled "I Disagree with this statement about Conspiracy Beliefs", "Neutral", and "I Agree with this statement about Conspiracy Beliefs". The "I Agree" column contains a statement: "1 Conspiracy believers spend a lot of time reading about conspiracies on the internet". A large red arrow points upwards towards this statement. At the bottom, there is a "Task View" button and a "Continue" button with a right-pointing arrow.

Once each of the statements had been placed into one of the three columns, the participants clicked to move onto another screen and the second, more refined part of the sorting process began. In this section, participants were asked to make more fine-grained decisions about how much they agreed or disagreed with each statement, and had to be more selective in terms of what

statements they agreed or disagreed with the most. On this screen, the three columns from the first part of the sorting process remained on the screen, with all of the statements that had been placed in to the columns, but they were also presented with another nine columns underneath. Of the nine columns, the furthest left column was again labelled 'I strongly disagree with this statement about conspiracy beliefs' and the furthest right was again labelled 'I strongly agree with this statement about conspiracy beliefs'. The centre column was again labelled 'neutral'.

The columns for this part of the study were formatted so that a fixed number of statements could be placed into each column. Six statements could be placed into the central (neutral) column, and this number decreased with each column moving out towards the two furthest end columns, such that only two statements could be placed into the final two columns. The programme would not allow more than the stated number of statements to be placed into the column.

To aid the statistical analyses, each of these columns were assigned a number, with the furthest right hand ('agree') column labelled +5, the one to the left of that +4, the one to the left of that +3, and so on, decreasing in ascending order until the middle (neutral) column, which was assigned a value of 0. The column pattern was symmetrical, so as the furthest right column was +5, the furthest left column was -5, and the number of statements that could be put into each column was also symmetrical, forming a quasi-normative distribution (see Figure One). A quasi-normal distribution means that the statements in the Q set are sorted according to how much the participant agrees or disagrees with them and a limited number of places for statements requires participants to decide which statements they agreed or disagreed with most strongly. The columns were labelled so that participants knew how many statements could go into each column (see Figure Two for a visual depiction of this).

**Figure Two:** Visual depiction of the second stage of the sorting process

**Study / Step 1 of 2...**

We would like to understand how you identify certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is part B of Q-sort 1. In this part of the study, I would like you to refine how you sorted the statements in part A. As you can see below, there are more columns to choose from and a fixed number of statements you can put into each column, which is written at the bottom of the column.

Drag the items to the boxes below:

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
1 Conspiracy beliefs assume that events are caused by large groups of people acting independently 2 Conspiracy believers think that all important information is being shared with the public 3 The conspirators in conspiracy beliefs are often powerful elites 4 The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.) 5 Conspiracy believers think that all politicians and officials are corrupt 6 Conspiracy beliefs lead to some groups of society being treated badly	1 Conspiracy beliefs can be fun and entertaining 2 Conspiracy beliefs are logical and rational 3 Conspiracy beliefs assume that conspirators manipulate events to serve their own interests 4 Conspiracy believers believe that they are the only ones who understand 'what is really going on' 5 Conspiracy beliefs are so complex that it can be hard to definitively disprove them 6 The conspirators in conspiracy beliefs do not typically involve intelligence agencies	1 Conspiracy believers think that the media routinely expose conspiracy theories 2 The conspirators in conspiracy beliefs are often governments or officials 3 Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems 4 Conspiracy believers do not believe that there is an intentional plan behind world events 5 A lot of people believe in conspiracies

I Strongly Disagree with this statement about Conspiracy Beliefs (2)	(3)	(4)	(5)	Neutral (6)	(5)	(4)	(3)	I Strongly Agree with this statement about Conspiracy Beliefs (2)
							1 Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate) 2 Conspiracy believers distrust academic	1 Conspiracy believers spend a lot of time reading about conspiracies on the internet
2 item(s) missing	3 item(s) missing	4 item(s) missing	5 item(s) missing	6 item(s) missing	5 item(s) missing	4 item(s) missing	Too many items	OK!

Continue

For this stage of the Q sort, participants were first asked to consider all of the statements that they had put in the 'I agree with this statement about conspiracy beliefs' column in the first stage of the sorting process. Of all of those statements, they were asked to select the two statements that they agreed with the most and then drag these two statements from the column that they were in, and place them in the farthest column of the new series of columns. They were then instructed to select the three statements that they next most agreed with and place them in the column directly left to the one they had just worked into. They were then asked to continue to work inwards until they had sorted all of the statements from the 'I agree with this statement about conspiracy beliefs' column from the first stage of the sort.

Participants were then asked to do the same for the 'I disagree with this statement about conspiracy beliefs' column; starting with the two statements they most disagreed with, and place these on the furthest left column. Once they had sorted all of the 'disagree' statements, participants were then asked to sort the statements that they had placed in the 'Neutral' column by moving them to either the central column or by working slightly outwards (dependent on how much space there was left in each column).

After the sorting process, the participants clicked onto the next screen and were given the opportunity to take a short break before moving onto the second Q set. For this Q set, the same process was followed as for the first Q set.

However, the columns were labelled differently. The left hand column was

labelled 'Makes me think that a conspiracy is less plausible', the middle was labelled 'Neutral', and the furthest right was labelled 'Makes me think that a conspiracy is more plausible'. The number of statements that fit into each column was also slightly different, but this was explained to the participants and again made clear at the top of each column.

## Appendix E - The Advert, the List of Locations Contacted and the List of Locations that Posted

Could you please post this? I am currently completing my clinical psychology doctorate training at the University of East London. As part of my course, I need to conduct a research study. I will be looking at how people understand what a conspiracy beliefs is, and then how they judge how plausible these beliefs are. It is conducted online and takes approximately 20 minutes to complete. If anyone has the time and would be interested in participating, please email me: ..... and I can send more information. Thank you.

Abbots Bromley, Staffordshire – posted  
Abingdon, Oxfordshire – posted  
Alvaston, Derbyshire – posted  
Ashbourne, Derbyshire- posted  
Ashby, Leicestershire – posted  
Ashford, Kent – posted  
Basildon, Essex  
Birmingham, West Midland – posted  
Bishops Stortford, Hertfordshire - posted  
Brighton, East Sussex  
Broxbourne, Hertfordshire – posted  
Buntingford, Hertfordshire – posted  
Bury, Greater Manchester  
Canterbury, Kent– posted  
Carlton, Cambridgeshire  
Chelmsford, Essex  
Cheshunt, Hertfordshire – posted  
Chingford, London – posted  
Cleethorpes, Lincolnshire  
Coventry, West Midlands  
Crawley, West Sussex  
Derby, Derbyshire – posted  
Dewsbury, Yorkshire – posted



Didcot, Oxfordshire – posted  
Dunstable, Bedfordshire  
Eastwood, Nottinghamshire – posted  
Ely, Cambridgeshire  
Enderby, Leicestershire – posted  
Enfield, London – Posted  
Epping, Essex – posted  
Evesham, Worcestershire – posted  
Feltham, London  
Folkestone, Kent  
Great Bentley, Essex  
Great Yarmouth, Norfolk – posted  
Harlow, Essex – posted  
Hemel Hempstead, Hertfordshire  
Hitchin, Hertfordshire  
Hoddesdon, Hertfordshire – posted  
Horley, Surrey – posted  
Hunstanton, Norfolk – posted  
Ilkeston, Derbyshire – posted  
Keyworth, Nottinghamshire – posted  
Kidlington, Oxfordshire  
Kimberley, Nottinghamshire  
Kingston-upon-thames, Surrey – posted  
Kingsway, Essex – posted  
Kirkby, Merseyside  
Langley Mill, Derbyshire – posted  
Leamington Spa, Warwickshire  
Leeds, West Yorkshire - posted  
Leicester, Leicestershire – posted  
Leighton Buzzard, Bedfordshire  
Littlehampton, West Sussex – posted  
Long Eaton, Derbyshire  
Loughborough, Leicestershire – posted  
Louth, Lincolnshire – posted  
Luton, Bedfordshire – posted

Mackworth, Derbyshire – posted  
Market Bosworth, Leicestershire – posted  
Marshfield, Gloucestershire – posted  
Melksham, Wiltshire  
Newham, London - posted  
Newmarket, Suffolk  
Newton Abbot, Devon – posted  
North Wingfield, Derbyshire – posted  
Northampton, Northamptonshire – posted  
Nottingham, Nottinghamshire  
Oldbury, West Midlands – posted  
Oldham, Greater Manchester – posted  
Paignton, Devon – posted  
Poole, Dorset – posted  
Portsmouth, Hampshire – posted  
Puckeridge, Hertfordshire – posted  
Radcliffe, Greater Manchester – posted  
Ramsey, Cambridgeshire – posted  
Reading, Berkshire  
Redhill, Surrey  
Stevenage, Hertfordshire – posted  
Torquay, Devon  
Trowbridge, Wiltshire – posted  
Waltham Cross, Hertfordshire – posted  
Ware, Hertfordshire – posted  
Warwick, Warwickshire  
Watford, Hertfordshire  
Welwyn Garden City - Hertfordshire  
Winchester, Hampshire  
York, Yorkshire

**UNIVERSITY OF EAST LONDON**

School of Psychology

Stratford Campus

Water Lane

London E15 4LZ



**The Principal Investigator(s)**

xxxx

[Contact Details: xxx@uel.ac.uk]

What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs

I would like to invite you to participate in this research study. Before you decide whether to participate, it is important that you understand the purpose of this study and what it involves. Please take the time to read this information carefully.

**What is the purpose of the research?**

There has been lots of discussion in recent years about conspiracy beliefs but it is unclear how people judge how true such beliefs are. Some researchers say that many of us may believe at least one. Researching these particular beliefs may also shed some light on other beliefs which some feel are unusual or unexplained.

I want to recruit a broad cross-section of people to take part in this study and you fit this profile.

**Do I have to take part?**

It is up to you to decide. If you think that you may be interested in participating, I will provide you with more detailed information about what is involved. I will then ask you to sign a consent form if you agree to take part. However, you are free to change your mind, without giving a reason. Should you choose to withdraw

from the study, you may do so without any negative consequences and without any obligation to give a reason.

### **What will happen to me if I take part?**

If you decide to take part, you will be asked to read a number of statements about the different reasons why you might judge another person's belief to be plausible and then put them in order of how important you think each statement is. You will be given detailed instructions on how to complete the sorting of the statements. The study will take place online and will take approximately 30 minutes to complete.

The study will take place online on a private website platform. If you take part in the study you will be given the weblink. It will not be possible for anyone to see your answers besides you and the researcher. Alternatively, you can take part by visiting the University of East London.

### **What are the possible benefits of taking part?**

You will not directly benefit from participating in this study but and you may find it interesting to think about how it will contribute to our understanding of how we make judgements about other people's beliefs.

### **What if there is a problem?**

Participation in this study poses little risk. In the unlikely event you experience some distress, you can discuss this with the researcher. You will be offered the opportunity to take a break and/or to withdraw from the study. The researcher will also have information on helpful organisations to contact if you wish to discuss anything about this research further.

### **Will my taking part in the study be kept confidential?**

Participation in this study will be completely confidential. After you have finished the study online, your answers (which are stored on the online programme) will be accessed by the researcher only. This information will be moved to a password protected file, on a password protected computer, that only the researcher has access to. Before analysing the data all participants will be identified by a unique code so that it will be analysed anonymously. Any

personally identifiable information will be stored separately and only used so that the researcher can send you a debrief letter once you have completed the study, or to enable the research to identify your data if you want it to be withdrawn from the study. No personally identifiable information will be given in either the thesis or any subsequent write-ups of the study (e.g. articles for scientific journals).

Once the study is completed, your answers will be kept for 5 years, after which they will be securely destroyed. Any demographic information that you provide, however, will be destroyed as soon as the study is complete. It is therefore important that if you wish to withdraw your answers from the study, you do so by the \*\* \*\*\* 2019. We have set a time limit of three weeks following your participation. If you withdraw after this cut-off date, the researcher reserves the right to use your anonymised data as the analysis will have begun.

Please feel free to ask me any questions. If you are happy to continue you will be asked to sign a consent form prior to your participation. Please retain this invitation letter for reference.

If you have any questions or concerns about how the study has been conducted, please contact the study's supervisor [Dr xxx, School of Psychology, University of East London, Water Lane, London E15 4LZ. Telephone: 020 8223 4021. Email: [d.harper@uel.ac.uk](mailto:d.harper@uel.ac.uk)]

**or**

Chair of the School of Psychology Research Ethics Subcommittee: Dr. Tim Lomas, School of Psychology, University of East London, Water Lane, London E15 4LZ. (Tel: 020 8223 4493. Email: [t.lomas@uel.ac.uk](mailto:t.lomas@uel.ac.uk))

Thank you in anticipation.

Yours sincerely,

xxxxx, 13<sup>th</sup> March 2019

**UNIVERSITY OF EAST LONDON**



Professional Clinical Psychology Doctorate

What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs

I have the read the information leaflet relating to the above programme of research in which I have been asked to participate and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what it being proposed and the procedures in which I will be involved have been explained to me.

I understand that my involvement in this study, and particular data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen to my data once the programme has been completed.

I hereby freely and fully consent to participate in the study which has been fully explained to me and for the information obtained to be used in relevant research publications.

Having given this consent I understand that I have the right to withdraw from the study at any point during the study, and for up to three weeks after completion, without disadvantage to myself and without being obliged to give any reason.

Participant's Name (BLOCK CAPITALS)

.....

Participant's Signature

.....

Investigator's Name (BLOCK CAPITALS)

.....

Investigator's Signature

.....

Date: .....

## Study Instructions

Thank you very much for agreeing to participate in this study. Please read this sheet for detailed instructions on how to participate. Participation must be on a laptop or desktop computer. Your participation is very much valued.

1. There are two parts to this study. Each part is referred to as a Q-sort, which is a set of statements that you will be asked to 'sort' in terms of how much you consider them to be important. The instructions are the same for both Q-sorts.
2. The programme will present you with 'Q-sort Number One' first, followed by 'Q-sort Number Two'.
3. Starting with 'Q-sort Number One', the programme will present you with a series of statements one at a time. Please read each statement carefully, as they may be phrased in a manner that is opposite to what you might expect. For each individual statement, you will be asked to 'sort' each statement into one of three categories (see below):
  - a. **I Disagree with this statement about Conspiracy Theories**
  - b. **I Agree with this statement about Conspiracy Theories**
  - c. Statements that you **neither agree or disagree with, or are ambiguous/ confusing (neutral)**

As you can see in the example below, the first statement is 'Conspiracy believers spend a lot of time reading about conspiracies on the internet'.



Study / Step 1 of 2...

We would like to understand how you understand certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is Q-sort 1, part A. You will be presented with 34 statements. Please drag each statement into one of the three columns below, whilst keeping the statement above in mind. Please consider each statement carefully as they may be phrased in the opposite manner to which you might expect.

Drag the following item into one of the boxes below:

Conspiracy believers spend a lot of time reading about conspiracies on the internet

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs

Continue


Click on the statement and drag it to the column that you most agree with (see below).

Study / Step 1 of 2...

We would like to understand how you understand certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is Q-sort 1, part A. You will be presented with 34 statements. Please drag each statement into one of the three columns below, whilst keeping the statement above in mind. Please consider each statement carefully as they may be phrased in the opposite manner to which you might expect.

Drag the following item into one of the boxes below:

Conspiracy beliefs assume that conspirators act in secret

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
		1 Conspiracy believers spend a lot of time reading about conspiracies on the internet 

Task View

Continue

Keep going until you have sorted all of the statements. The programme will notify you when you have done so.

Study / Step 1 of 2...

We would like to understand how you understand certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is Q-sort 1, part A. You will be presented with 34 statements. Please drag each statement into one of the three columns below, whilst keeping the statement above in mind. Please consider each statement carefully, as there may be phrases in the opposite manner to which you might expect.

Drag the following item into one of the boxes below:

Conspiracy beliefs assume that conspirators manipulate events to serve their own interests

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
1 People enjoy talking to conspiracy believers	1 Conspiracy beliefs can be fun and entertaining	1 Conspiracy believers spend a lot of time reading about conspiracies on the internet
2 Conspiracy beliefs assume that events are caused by large groups of people acting independently	2 Conspiracy beliefs are logical and rational	2 Conspiracy beliefs assume that conspirators act in secret
3 Conspiracy believers think that all important information is being shared with the public	3 Conspiracy believers distrust academic researchers and scientists	3 Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)
4 The conspirators in conspiracy beliefs are often powerful elites	4 Conspiracy beliefs take accepted facts but then make a big leap of faith to reach conclusions that aren't supported by the facts	4 Conspiracy believers think that the media routinely expose conspiracy theories
5 The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)		5 The conspirators in conspiracy beliefs are often governments or officials
		6 Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems

Continue

4. Once you have gone through all of the statements, you will be asked to move onto the second part of that Q-sort (Q-sort 1, part B).

5. For this section, the programme will present you with more columns to choose from, which relate to the strength with which you agree with those statements. You will be asked to refine how you sorted the statements in part A. There is a fixed number of statements that you can put into each column which is written at the bottom of the column (if you try to put too many statements into a column the system will tell you).

Study / Step 1 of 2...

We would like to understand how you identify certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is part B of Q-sort 1. In this part of the study, I would like you to refine how you sorted the statements in part A. As you can see below, there are more columns to choose from and a fixed number of statements you can put into each column, which is written at the bottom of the column.

Drag the items to the boxes below:

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
1 People enjoy talking to conspiracy believers	1 Conspiracy beliefs can be fun and entertaining	1 Conspiracy believers spend a lot of time reading about conspiracies on the internet
2 Conspiracy beliefs assume that events are caused by large groups of people acting independently	2 Conspiracy beliefs are logical and rational	2 Conspiracy beliefs assume that conspirators act in secret
3 Conspiracy believers think that all important information is being shared with the public	3 Conspiracy believers distrust academic researchers and scientists	3 Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)
4 The conspirators in conspiracy beliefs are often powerful elites	4 Conspiracy beliefs take accepted facts but then make a big leap of faith to reach conclusions that aren't supported by the facts	4 Conspiracy believers think that the media routinely expose conspiracy theories
5 The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)	5 Conspiracy beliefs assume that conspirators manipulate events to serve their own interests	5 The conspirators in conspiracy beliefs are often governments or officials
6 Conspiracy believers think that all politicians and officials are corrupt	6 Conspiracy believers believe that they are the only ones who understand 'what is really going on'	6 Conspiracy believers think events happen because of the planned

I Strongly Disagree with this statement about Conspiracy Beliefs (2)	(3)	(4)	(5)	Neutral (6)	(5)	(4)	(3)	I Strongly Agree with this statement about Conspiracy Beliefs (2)
2 item(s) missing	3 item(s) missing	4 item(s) missing	5 item(s) missing	6 item(s) missing	5 item(s) missing	4 item(s) missing	3 item(s) missing	2 item(s) missing

Continue

6. Please start with the statements that you considered to be 'Important in Defining what a Conspiracy Theory is'. Out of those, please choose the 2

statements that you felt were most **important** and using your mouse, drag them to the furthest right column. You will then need to select the 3 statements that you considered to be the next most important and drag them to the second furthest right column.

Following this, select the next 5 statements that you consider to be important and so on until you have sorted all of the statements that you considered to be **important**.

If you look at the image below, at the bottom of the furthest column it says 'OK' to indicate that there are the right number of statements in it. The column to the left of it says 'too many items' at the bottom to indicate you need to remove some statements from it.

Study / Step 1 of 2...

We would like to understand how you identify certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is part B of Q-sort 1. In this part of the study, I would like you to refine how you sorted the statements in part A. As you can see below, there are more columns to choose from and a fixed number of statements you can put into each column, which is written at the bottom of the column.

Drag the items to the boxes below:

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
1 Conspiracy beliefs assume that events are caused by large groups of people acting independently 2 Conspiracy believers think that all important information is being shared with the public 3 The conspirators in conspiracy beliefs are often powerful elites 4 The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.) 5 Conspiracy believers think that all politicians and officials are corrupt 6 Conspiracy beliefs lead to some groups of society being treated badly	1 Conspiracy beliefs can be fun and entertaining 2 Conspiracy beliefs are logical and rational 3 Conspiracy beliefs assume that conspirators manipulate events to serve their own interests 4 Conspiracy believers believe that they are the only ones who understand 'what is really going on' 5 Conspiracy beliefs are so complex that it can be hard to definitively disprove them 6 The conspirators in conspiracy beliefs do not typically involve intelligence agencies	1 Conspiracy believers think that the media routinely expose conspiracy theories 2 The conspirators in conspiracy beliefs are often governments or officials 3 Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems 4 Conspiracy believers do not believe that there is an intentional plan behind world events 5 A lot of people believe in conspiracies

I Strongly Disagree with this statement about Conspiracy Beliefs (2)	(3)	(4)	(5)	Neutral (6)	(5)	(4)	(3)	I Strongly Agree with this statement about Conspiracy Beliefs (2)
							1 Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate) 2 Conspiracy believers distrust Academic	1 Conspiracy believers spend a lot of time reading about conspiracies on the internet
2 item(s) missing	3 item(s) missing	4 item(s) missing	5 item(s) missing	6 item(s) missing	5 item(s) missing	4 item(s) missing	Too many items	OK!

Continue

7. Please next consider the statements that you considered to be **Not Important in Defining what a Conspiracy Theory is**. Repeat the same process, starting with the 2 that you felt were the least important but place them in the furthest left column.

Study / Step 1 of 2...

We would like to understand how you identify certain beliefs to be 'conspiracy beliefs' and the people who believe them to be conspiracy believers. This is part B of Q-sort 1. In this part of the study, I would like you to refine how you sorted the statements in part A. As you can see below, there are more columns to choose from and a fixed number of statements you can put into each column, which is written at the bottom of the column.

Drag the items to the boxes below:

I Disagree with this statement about Conspiracy Beliefs	Neutral	I Agree with this statement about Conspiracy Beliefs
	1 Conspiracy believers spend a lot of time reading about conspiracies on the internet 2 Conspiracy beliefs assume that conspirators act in secret 3 Conspiracy beliefs can be fun and entertaining 4 People enjoy talking to conspiracy believers 5 Conspiracy beliefs assume that events are caused by large groups of people acting independently 6 Conspiracy beliefs are logical and rational 7 Conspiracy believers are crucial in exposing real-life conspiracies	

I Strongly Disagree with this statement about Conspiracy Beliefs (2)	(3)	(4)	(5)	Neutral (6)	(5)	(4)	(3)	I Strongly Agree with this statement about Conspiracy Beliefs (2)
1 Conspiracy beliefs are so complex that it can be hard to definitively disprove them OK!	1 The conspirators in conspiracy beliefs do not typically involve intelligence agencies 2 Conspiracy beliefs can have serious negative OK!	1 Conspiracy beliefs lead to some groups of society being treated badly 2 Conspiracy believers see those who disagree with them as 1 item(s) missing	5 item(s) missing	Neutral (6) 6 item(s) missing	5 item(s) missing	1 Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political OK!	1 The conspirators in conspiracy beliefs are often powerful elites 2 The conspirators in conspiracy beliefs are often governments or OK!	1 Conspiracy believers distrust academic researchers and scientists OK!

Continue

8. You will finally be asked to sort the remaining statements (statements that you neither agree nor disagree with, or any ambiguous or confusing statements) into the remaining columns.

9. After you have sorted all statements, look over them again to see if there are any statements you would like to rearrange.

10. You will then be asked to repeat this process for the 'Q-sort Number Two' but with a new set of statements.

**UNIVERSITY OF EAST LONDON**  
**School of Psychology**

**APPLICATION FOR RESEARCH ETHICS APPROVAL**  
**FOR RESEARCH INVOLVING HUMAN PARTICIPANTS**

**FOR BSc RESEARCH**

**FOR MSc/MA RESEARCH**

**FOR PROFESSIONAL DOCTORATE RESEARCH IN CLINICAL,  
COUNSELLING & EDUCATIONAL PSYCHOLOGY**

If you need to apply for ethical clearance from HRA (through IRIS) for research involving the NHS you DO NOT need to apply to the School of Psychology for ethical clearance also. Please see details on

<https://uelac.sharepoint.com/ResearchInnovationandEnterprise/Pages/NHS-Research-Ethics-Committees.aspx>

Among other things this site will tell you about UEL sponsorship

PLEASE NOTE that HRA approval for research involving NHS employees is not required when data collection will take place off NHS premises and when NHS employees are not recruited directly through NHS lines of communication. This means that NHS staff can participate in research without HRA approval when a student recruits via their own social or professional networks or through a professional body like the BPS, for example.

If you are employed by the NHS and plan to recruit participants from the NHS Trust you work for, it please seek permission from an appropriate person at your place of work (and better to collect data off NHS premises).

**PLEASE NOTE** that the School Research Ethics Committee does not recommend BSc and MSc/MA students designing research that requires HRA approval for research involving the NHS as this can be a demanding and lengthy process.

*Before completing this application please familiarise yourself with:*

The *Code of Ethics and Conduct* (2009) published by the British Psychological Society (BPS). This can be found in the Ethics folder in the Psychology Noticeboard (Moodle) and also on the BPS website  
[http://www.bps.org.uk/system/files/Public%20files/aa%20Standard%20Docs/inf94\\_code\\_web\\_ethics\\_conduct.pdf](http://www.bps.org.uk/system/files/Public%20files/aa%20Standard%20Docs/inf94_code_web_ethics_conduct.pdf)

And please also see the UEL Code of Practice for Research Ethics (2015-16)  
<https://uelac.sharepoint.com/ResearchInnovationandEnterprise/Documents/Ethics%20forms/UEL-Code-of-Practice-for-Research-Ethics-2015-16.pdf>

### **HOW TO COMPLETE & SUBMIT THIS APPLICATION**

Complete this application form electronically, fully and accurately.

Type your name in the 'student's signature' section (5.1).

Include copies of all necessary attachments in the **ONE DOCUMENT SAVED AS .doc**

Email your supervisor the completed application and all attachments as **ONE DOCUMENT**. Your supervisor will then look over your application.

When your application demonstrates sound ethical protocol your supervisor will type in his/her name in the 'supervisor's signature' (section 5) and submit your application for review (psychology.ethics@uel.ac.uk). You should be copied into this email so that you

know your application has been submitted. It is the responsibility of students to check this.

Your supervisor should let you know the outcome of your application. Recruitment and data collection are **NOT** to commence until your ethics application has been approved, along with other research ethics approvals that may be necessary (See section 4)

### **ATTACHMENTS YOU MUST ATTACH TO THIS APPLICATION**

A copy of the participant invitation letter that you intend giving to potential participants.

A copy of the consent form that you intend giving to participants.

A copy of the debrief letter you intend to give participants.

### **OTHER ATTACHMENTS (AS APPROPRIATE)**

A copy of original and/or pre-existing questionnaire(s) and test(s) you intend to use.

Example of the kinds of interview questions you intend to ask participants.

Copies of the visual material(s) you intend showing participants.

A copy of ethical clearance or permission from an external institution or organisation if you need it (e.g. a charity, school, local authority, workplace etc.). Permissions must be attached to this application. If you require ethical clearance from an external organisation your ethics application can be submitted to the School of Psychology before ethical approval is obtained from another organisation (see Section 5).

### **Disclosure and Barring Service (DBS) certificates:**

**FOR BSc/MSc/MA STUDENTS WHOSE RESEARCH INVOLVES VULNERABLE PARTICIPANTS:** A scanned copy of a current Disclosure and Barring Service (DBS) certificate. A current certificate is one that is not older than six months. If you have an

Enhanced DBS clearance (one you pay a monthly fee to maintain) then the number of your Enhanced DBS clearance will suffice.

DBS clearance is necessary if your research involves young people (anyone 16 years of age or under) or vulnerable adults (see Section 4 for a broad definition of this). A DBS certificate that you have obtained through an organisation you work for is acceptable as long as it is current. If you do not have a current DBS certificate, but need one for your research, you can apply for one through the HUB and the School will pay the cost.

If you need to attach a copy of a DBS certificate to your ethics application but would like to keep it confidential please email a scanned copy of the certificate directly to Dr Tim Lomas (Chair of the School Research Ethics Committee) at [t.lomas@uel.ac.uk](mailto:t.lomas@uel.ac.uk)

**FOR PROFESSIONAL DOCTORATE STUDENTS WHOSE RESEARCH INVOLVES VULNERABLE PARTICIPANTS:** DBS clearance is necessary if your research involves young people (anyone under 16 years of age) or vulnerable adults (see Section 4 for a broad definition of this). The DBS check that was done, or verified, when you registered for your programme is sufficient and you will not have to apply for another for the duration of your studies in order to conduct research with vulnerable populations.

Please read all guidance notes in blue carefully to avoid incorrect or insufficient applications

If yours is an online study using Qualtrics please see the example ethics application in the Ethics folder in the Psychology Noticeboard

### **SECTION 1. Your details**

**Your name:** xxxx

**Your supervisor's name:** Dr xxxx



**Title of your programme:** (e.g. BSc Psychology) Professional Clinical Psychology  
Doctorate

**Submission date for your BSc/MSc/MA research: May 2020**

**Please tick if your application includes a copy of a DBS certificate** ☐ (see  
page 3)

**Please tick if your research requires DBS clearance but you are a Prof Doc  
student and have applied for DBS clearance – or had existing clearance verified –  
when you registered on your programme (see page 3)**

☐

**Please tick if you need to submit a DBS certificate with this  
application but have emailed a copy to Dr Tim Lomas for  
confidentiality reasons (Chair of the School Research Ethics Committee)  
[t.lomas@uel.ac.uk](mailto:t.lomas@uel.ac.uk)**

☐

**Please tick to confirm that you have read and understood the British  
Psychological Society's Code of Ethics and Conduct (2009) and the UEL Code of  
Practice for Research Ethics (See links on page 1)**

☐

## **SECTION 2. About your research**

**What your proposed research is about:**

Please be clear and detailed in outlining what your proposed research is about. Include the research question (i.e. what will your proposed investigate?)

**Title:** What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs

The current study will explore how members of the general public determine the plausibility of conspiratorial beliefs. This will be investigated using the Q-sort methodology due to its emphasis on not pursuing one absolute 'truth', but its ability to gain multiple different perspectives on this issue.

There will be two Q-sets, with the first focussing on the question: "What are the different ways in which conspiracy theories can be defined?"

The second Q-set will ask the question: "What kinds of features make a belief seem more implausible?"

### **Design of the research:**

Type of experimental design, variables, questionnaire, survey etc., as relevant to your research. If the research is qualitative what approach will be used and what will the data be?

This study will be a Q-sort methodology, mixed-methods design. This will involve two Q-sets.

A Q-set is developed from the concourse, which consists of the 'full range' of everyday discourse surrounding a particular topic. This will be accessed through a plethora of sources, including newspapers, films and academic literature.

Once the concourse is adequately sampled a condensed but representative sample of statements will be narrowed down to form each Q-set.

The study will be conducted online using a Q-sort programme. The programme will initially present participants with the first Q-set, comprised of various statements relating to different understandings of conspiracy theories. They will be asked to sort each statement according to importance (important, unimportant, and neutral) in relation to the first question: "What do you understand by the term 'conspiracy theory'?"

Following this, they will be presented with a forced-choice Q-sort distribution grid and asked to select the three statements that they consider to be most important from those they ranked 'important'. These will be placed on the farthest column of the distribution grid. They will then be instructed to take the next four 'important' statements and work inwards until they have sorted all 'important' statements. Participants will then be given the same instructions for the 'not important' statements but placing these on the other

side of the grid. Participants will finally be asked to sort the remaining neutral statements by placing the ones that they did not feel strongly about in the central column and working either outwards or inwards.

Following this, participants will be asked to go through the same procedure again, but this time with the second Q-set. The question addressed through the second Q-set will be "What kinds of features make a belief seem more implausible?"

Once both Q-sets have been completed, each participant will be asked their reasons for sorting the statements in the way that they did. The following question will be asked in the debrief:

'I would like to understand how people made choices about the statements and so I would be grateful if you could email me about this. Focussing on the second Q-sort, think of the three items you agreed with or disagreed with most strongly, please briefly explain why you rated them in that way'.

#### **Recruitment and participants (Your sample):**

Proposed number of participants, [method/s of recruitment](#), specific characteristics of the sample such as age range, gender and ethnicity - whatever is relevant to your research.

Opportunity sampling via social media will be used to recruit participants from the general population. Participants will need to be over 18-years old and fluent in English.

#### **Measures, materials or equipment:**

Give details about what will be used during the course of the research. For example: equipment, a questionnaire, a particular psychological test or tests, an interview schedule or other stimuli such as visual material. See note on page 2 about attaching copies of questionnaires and tests to this application. If you are using an interview schedule for qualitative research attach example questions that you plan to ask your participants to this application.

The study will be online using a Q-sort programme ("Q-assessor").

Examples of statements used in the first Q-sort are as follows:

Conspiracy theories tend to involve suspicion about the government and the official explanations of events

Conspiracy theories can involve linking a whole series of world events together as something planned

Conspiracy theories tend to assume that secret groups of people have more power to affect unfortunate events than happens in the real world

Conspiracy theories are hard to prove or disprove

Examples of statements used in the first Q-sort are as follows:

Conspiracy beliefs are not believable due to a lack of evidence

Conspiracy beliefs are more credible when a lot of people believe them

Conspiracy theories are more likely to be plausible when famous people believe them

**12. If you are using copyrighted/pre-validated questionnaires, tests or other stimuli that you have not written or made yourself, are these questionnaires and tests suitable for the age group of your participants?**

N/A

**Outline the data collection procedure involved in your research:**

[Describe in detail what will be involved in data collection. For example, what will participants be asked to do, where, and for how long? If using online surveys will you be using Qualtrics? Detail what you will include in the Qualtrics page that you intend to make available to potential participants \(see the example ethics application for a student study using Qualtrics in the Ethics folder of the Psychology Noticeboard\).](#)

Participants will be recruited via social media (i.e. Twitter, Facebook), where they will be given a brief summary about what is expected of them. If they express interest in participating, the participants will be asked to e-mail me. I will then e-mail them the information sheet (See Appendix A) and consent form (See Appendix B). This will be followed by a brief telephone call to ensure that they fully understand what is expected of them, and to address any queries that they may have.

If an individual full consents to participate, I will then email them a more detailed information sheet about what the study involves (See Appendix C), a demographic questionnaire (See Appendix E) and the link to the “Q-assessor” programme. This programme will involve presenting participants with two separate Q-sorts. Q-sort 1 will always be presented first, and participants will be asked initially to read through each of the items in the Q-set before sorting and arranging the items onto a Q-sort grid. They will be asked to follow the same procedure for the second Q-sort. The study will take approximately 30 minutes to complete.

The data will be stored on the “Q-assessor” programme, which will only be accessed by the researcher. To store this data, I will create three excel spreadsheets: one with

demographic data and participant ID numbers; another with the Q factor results which only has Participant ID numbers; and one with participant ID codes as well as names/contact details.

A Q-methodology statistical programme (PQMethod; Schmolck, 2002) will be used to analyse the data. The demographic data will be used in group terms to describe the sample and to help interpret Q-factors (as Q-factors are composed of individuals who have sorted the Q-item statements similarly).

### **SECTION 3. Ethical considerations**

#### **Fully informing participants about the research (and parents/guardians if necessary):**

How will you fully inform your participants when inviting them to participate? Will the participant invitation letter be written in a style appropriate for children and young people, if necessary?

I will be sending individuals who have volunteered to participate the information sheet (See Appendix A) and consent form (See Appendix B), and will then be communicating with them by phone/email to ensure that they fully understand the nature of the study, and informed consent.

#### **Obtaining fully informed consent from participants (and from parents/guardians if necessary):**

Is the consent form written in a style appropriate for children and young people, if necessary? Do you need a consent form for both young people and their parents/guardians? How will you gain consent if your research is collecting data online (e.g. using Qualtrics)?

If participants agree to participate, they will be emailed a copy of the consent form, which they will be required to complete, sign and return. Verbal consent will also be obtained during the telephone call.

#### **16. Engaging in deception, if relevant:**

What will participants be told about the nature of the research? The amount of any information withheld and the delay in disclosing the withheld information should be kept to an absolute minimum.

Participants will not be deceived in this study.

## **17. Right of withdrawal:**

In this section, and in your participant invitation letter, make it clear to participants that 'withdrawal' will involve (1) participants being able to decide to not continue with participation in your research, and (2) the right to have the data they have supplied destroyed on request. You are asked to give participants a three-week window from the time they participate in your study to when they can withdraw their data. Make this clear in your participant invitation letter.

**Note: If your study involves data collection through Qualtrics, it is essential that you ask participants to provide their own participant code on Qualtrics (e.g. two letters and two numbers) so that you will be able to identify them if they later want to withdraw their data.**

To store the data, I will have three excel spreadsheets: one with demographic data and participant ID numbers; another with the Q factor results which only has Participant ID numbers; and one with participant ID codes as well as names/contact details. These spreadsheets will be stored by the researcher as a password protected file on a password protected computer, which only the researcher can access.

The latter excel spreadsheet, which links participants ID codes with names/ contact details is required to enable me to email participants the debrief sheet in case of any queries from them, to ask them how they sorted the items, and to ensure that I can remove their data if they request that I do so. This will be deleted at the end of the study. Besides this, I will be using ID codes throughout the entirety of the study.

In the letter e-mailed to each participant, they will be informed of their right to withdraw from the study. Participants will be able to decide to not continue with participation in the research, and will be informed of their right to have the data that they have supplied destroyed on request. Participants will be given a three-week window from the time they participated in the study to when they can withdraw their data (they will be provided with the exact date that they can withdraw by). After this point, the excel spreadsheet which connects them to their data will have been destroyed and so their data will no longer be identifiable and thus no longer possible to extract/ remove.

## **18. Will the data be gathered anonymously?**

This is where you will not know the names and contact details of your participants? In qualitative research that involves interviews, data is not collected anonymously because you will know the names and contact details of your participants.

No

**19. If NO what steps will be taken to ensure confidentiality and protect the identity of participants?**

How will the names and contact details of participants be stored and who will have access? Will real names and identifying references be omitted from the reporting of data and transcripts etc? What will happen to the data after the study is over? Usually data will be destroyed after a study is over but if there is a possibility of you developing your research (for publication, for example) you may not want to destroy all data at the end of the study. If not destroying your data at the end of the study, what will be kept, how, and for how long? (suggested time is two years). It is advised that you destroy all names and contact details of participants at the end of your study regardless of how long will keep your data for. Make this clear in your participant invitation letter.

The online programme will require participant codes only to ensure that the data remains anonymous. However, I will be personally following each participant up with a debrief letter and asking participants to explain their ratings (as the online programme doesn't enable this).

Data will be anonymised to analyse, but an excel spreadsheet with their identifiable information will be stored by the researcher as a password protected file on a password protected computer, which only the researcher can access. All names and contact details of participants will be destroyed at the end of study. Other data will be retained for five years before being destroyed.

**20. Will participants be paid or reimbursed?**

This is not necessary but payment/reimbursement must be in the form of redeemable vouchers and not cash. Please note that the School cannot fund participant payment.

NO

**SECTION 4. Other permissions and ethical clearances**

**21. Research involving the NHS in England**

**Is HRA approval for research involving the NHS required?** NO

[Please see Page 1 of this application for important information and link](#)

**Will the research involve NHS employees who will not be directly recruited through the NHS and where data from NHS employees will not be collected on NHS premises?**

NO

**If you work for an NHS Trust and plan to recruit colleagues from the Trust will permission from an appropriate member of staff at the Trust be sought and is a copy of this permission (can be an email from the Trust) attached to this application?**

NO

**22. Permission(s) from an external institution/organisation (e.g. a school, charity, workplace, local authority, care home etc.)?**

[You need to attach written permission from external institutions/organisations/workplaces if they are helping you with recruitment and/or data collection, if you are collecting data on their premises, or if you are using any material owned by the institution/organisation.](#)

**Is permission from an external institution/organisation/workplace required?** NO

**If YES please give the name and address of the institution/organisation/workplace:**

[COPIES OF PERMISSIONS \(LETTER OR EMAIL\) MUST BE ATTACHED TO THIS APPLICATION](#)

In some cases you may be required to have formal ethical clearance from the external institution or organisation or workplace too.

**23. Is ethical clearance required from any other ethics committee?**

NO



**If YES please give the name and address of the organisation:**

**Has such ethical clearance been obtained yet?**

N/A

**If NO why not?**

**If YES, please attach a scanned copy of the ethical approval letter. A copy of an email from the organisation confirming its ethical clearance is acceptable.**

Ethical approval from the School of Psychology can be gained before approval from another research ethics committee is obtained. However, recruitment and data collection are NOT to commence until your research has been approved by the School and other ethics committee/s as may be necessary

## **SECTION 5. Risk Assessment**

If you have serious concerns about the safety of a participant, or others, during the course of your research please see your supervisor as soon as possible.

If there is any unexpected occurrence while you are collecting your data (e.g. a participant or the researcher injures themselves), please report this to your supervisor as soon as possible.

### **24. Protection of participants:**

Are there any potential hazards to participants or any risk of accident or injury to them? What is the nature of these hazards or risks (can be physical, emotional or psychological)? How will the safety and well-being of participants be ensured? Will contact details of an appropriate support organisation or agency will be made available to participants in your debrief sheet, particularly if the research is of a sensitive nature or potentially distressing?

*The support organisation or agency that you refer participants to in your debrief letter should be appropriate. That is, is there a more appropriate support organisation than the Samaritans, for example (i.e. anxiety, mental health, young people telephone support help-lines)?*

There are no foreseen potential hazards to participants or any risk of accident or injury to them. The safety and well-being of participants will be ensured by offering them with the contact details for further psychological support, should they find the nature or content of the research study distressing.

Participants will be provided with the contact details for the Samaritans, advised to discuss any concerns with their GP, and also given information about IAPT services.

**25. Protection of the researcher:**

*Will you be knowingly exposed to any health and safety risks? If equipment is being used is there any risk of accident or injury to you and how will you mitigate this? If interviewing participants in their homes will a third party be told of place and time and when you have left a participant's house?*

No health risks are foreseen as the study will be conducted online.

**26. Debriefing participants:**

*How will participants be de-briefed? Will participants be informed about the true nature of the research if they are not told beforehand? Will contact details of a support organisation be made available to participants via the debrief letter? All student research must involve a debrief letter for participants (unless the research involves anonymous surveys) so please attach a copy of your debrief letter to this application (see page 12).*

Participants will be e-mailed information about the nature of the research prior to participation. Participants will be debriefed via telephone. They will also be sent a debrief letter (See Appendix D), which will contain the details of support organisations if they feel that they need them.

**27. Other:** *Is there anything else the reviewer of this application needs to know to make a properly informed assessment?*

No

**28. Will your research involve working with children or vulnerable adults?\***

NO

**If YES have you obtained and attached a DBS certificate?**

N/A

**If your research involves young people under 16 years of age and young people of limited competence will parental/guardian consent be obtained.**

N/A

**If NO please give reasons.** (Note that parental consent is always required for participants who are 16 years of age and younger)

\* You are required to have DBS clearance if your participant group involves (1) children and young people who are 16 years of age or under, and (2) 'vulnerable' people aged 16 and over with psychiatric illnesses, people who receive domestic care, elderly people (particularly those in nursing homes), people in palliative care, and people living in institutions and sheltered accommodation, and people who have been involved in the criminal justice system, for example. Vulnerable people are understood to be persons who are not necessarily able to freely consent to participating in your research, or who may find it difficult to withhold consent. If in doubt about the extent of the vulnerability of your intended participant group, speak to your supervisor. Methods that maximise the understanding and ability of vulnerable people to give consent should be used whenever possible. For more information about ethical research involving children see:

<https://uelac.sharepoint.com/ResearchInnovationandEnterprise/Pages/Research-involving-children.aspx>

**29 Will you be collecting data overseas?**

NO

This includes collecting data while you are away from the UK on holiday or visiting your country of origin, and distance learning students who will be collecting data in their overseas country of residence.

**If YES in what country or countries will you be collecting data?**

Please click on this link <https://www.gov.uk/foreign-travel-advice> and note in the space below what the UK Government is recommending about travel to that country/province (Please note that you MUST NOT travel to a country/province/area that is deemed to be high risk or where essential travel only is recommended by the UK Government. If you are unsure it is essential that you speak to your supervisor or the UEL Travel Office – [travel@uel.ac.uk](mailto:travel@uel.ac.uk) / (0)20 8223 6801).

## **SECTION 6. Declarations**

**Declaration by student:**

*I confirm that I have discussed the ethics and feasibility of this research proposal with my supervisor.*

Student's name: xxxx

Student's number: U1725752

Date: 13/03/2019

**Supervisor's declaration of support is given upon their electronic submission of the application**

**School of Psychology Research Ethics Committee**

**NOTICE OF ETHICS REVIEW DECISION**

For research involving human participants

BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

REVIEWER: Rona Hart

SUPERVISOR: xxxx

STUDENT: xxxx

Course: Professional Clinical Psychology Doctorate

Title of proposed study: TBC

**DECISION OPTIONS:**

**APPROVED:** Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.

**APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED BEFORE THE RESEARCH COMMENCES** (see Minor Amendments box below): In this circumstance, re-submission of an ethics application is not required but the student must confirm with their supervisor that all minor amendments have been made before the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to

her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.

**NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED** (see Major Amendments box below): In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

#### DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY

*(Please indicate the decision according to one of the 3 options above)*

APPROVED
----------

Minor amendments required *(for reviewer)*:

Major amendments required *(for reviewer)*:

Confirmation of making the above minor amendments *(for students)*:

I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data.

Student's name *(Typed name to act as signature)*:

Student number:

Date:

*(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)*

## ASSESSMENT OF RISK TO RESEACHER *(for reviewer)*

Has an adequate risk assessment been offered in the application form?

YES / NO

Please request resubmission with an adequate risk assessment

If the proposed research could expose the researcher to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:



Please do not approve a high risk application and refer to the Chair of Ethics. Travel to countries/provinces/areas deemed to be high risk should not be permitted and an application not approved on this basis. If unsure please refer to the Chair of Ethics.



MEDIUM (Please approve but with appropriate recommendations)



Reviewer comments in relation to researcher risk (if any).

Reviewer (*Typed name to act as signature*):

Dr Rona Hart

Date: 12<sup>th</sup> Apr 2019

*This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee*

RESEARCHER PLEASE NOTE:

For the researcher and participants involved in the above named study to be covered by UEL's Insurance, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.

For a copy of UEL's Personal Accident & Travel Insurance Policy, please see the Ethics Folder in the Psychology Noticeboard



UNIVERSITY OF EAST LONDON

School of Psychology

## REQUEST FOR AMENDMENT TO AN ETHICS APPLICATION

### FOR BSc, MSc/MA & TAUGHT PROFESSIONAL DOCTORATE STUDENTS

Please complete this form if you are requesting approval for proposed amendment(s) to an ethics application that has been approved by the School of Psychology.

Note that approval must be given for significant change to research procedure that impacts on ethical protocol. If you are not sure about whether your proposed amendment warrants approval consult your supervisor or contact Dr Tim Lomas (Chair of the School Research Ethics Committee. [t.lomas@uel.ac.uk](mailto:t.lomas@uel.ac.uk)).

### HOW TO COMPLETE & SUBMIT THE REQUEST

Complete the request form electronically and accurately.

Type your name in the 'student's signature' section (page 2).

When submitting this request form, ensure that all necessary documents are attached (see below).

Using your UEL email address, email the completed request form along with associated documents to: Dr Tim Lomas at [t.lomas@uel.ac.uk](mailto:t.lomas@uel.ac.uk)

Your request form will be returned to you via your UEL email address with reviewer's response box completed. This will normally be within five days. Keep a copy of the approval to submit with your project/dissertation/thesis.

Recruitment and data collection are not to commence until your proposed amendment has been approved.

### REQUIRED DOCUMENTS

A copy of your previously approved ethics application with proposed amendments(s) added as tracked changes.

Copies of updated documents that may relate to your proposed amendment(s). For example an updated recruitment notice, updated participant information letter, updated consent form etc.

A copy of the approval of your initial ethics application.

Name of applicant: xxx

Programme of study: Doctorate of Clinical Psychology

Title of research: What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs

Name of supervisor: Dr xxxx

Briefly outline the nature of your proposed amendment(s) and associated rationale(s) in the boxes below

Proposed amendment	Rationale
The title of my research project	To ensure that the title of the project has the same title on the ethical approval letter, and the application for examination arrangements



**Debrief Sheet Following Participation in this Research Study**



What makes a belief seem implausible to others? A Q methodology study of conspiracy beliefs

Thank you very much for taking the time to participate in this research study.

The aim of this study was to explore how members of the general public understand conspiracy theories and how they determine their plausibility. This will provide insight into how people make judgements about the plausibility of a range of beliefs and will help us to gain a better understanding of what factors may cause people to question the plausibility of a speaker's beliefs. This will potentially have numerous ethical, clinical and practical implications.

As a final part of this study, I would also like to understand how people made choices about the statements and so I would be grateful if you could email me about this. Focussing on the second Q-sort, think of the three items that you agreed with or disagreed with most strongly, and please briefly respond to this email, explaining why you rated them in that way.

I would like to reiterate at this point that your data will be stored confidentially. If you choose to withdraw your data from the study, please let me know within three weeks. If you withdraw after this cut-off date, the researcher reserves the right to use your anonymised data as the analysis will have begun.

If you have any further questions about the study, or require any further support, please do contact me. Alternatively, if taking part in this study has caused you to experience any discomfort or distress, and you feel that you would like to talk

to someone further about this, there are a number of organisations that you can contact. As a first point of call, your GP will be able to inform you of specific local organisations that would be able to access. However, there are also national organisations that you can contact, such as the Samaritans. They can be contacted via their free number which is 116 123.

Appendix K - PQMethod 'Unrotated factor matrix' output

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
1	0.8537	- 0.2759	- 0.1859	- 0.0552	0.1077	- 0.0746	0.0421	0.133
p2	0.793	0.0242	0.1193	- 0.0355	0.2717	0.1126	- 0.1195	- 0.1136
p3	- 0.0058	0.2636	0.155	- 0.0668	0.4224	0.3547	0.1701	- 0.3689
p4	0.4852	- 0.3374	0.4408	0.3361	-0.181	0.1067	0.2336	0.1182
p5	0.4116	0.4013	0.1194	- 0.2466	- 0.0009	0.4679	0.2555	0.0855
p6	0.2669	0.2013	0.6824	0.028	- 0.0919	- 0.1165	- 0.0693	-0.026
p7	0.3599	0.1775	0.0316	- 0.5121	- 0.1146	- 0.1462	- 0.0313	-0.186
p8	0.7533	0.1269	- 0.1128	0.0807	0.0315	- 0.1613	-0.381	0.0361
p9	0.7151	- 0.2558	- 0.1322	0.0537	- 0.4207	- 0.1231	0.0942	- 0.1593
p10	0.5938	- 0.2377	- 0.1119	- 0.1785	0.4105	0.3075	0.0368	- 0.0053
p11	0.6476	0.466	- 0.0985	0.2689	0.2799	- 0.0933	- 0.1771	0.0842
p12	0.4791	0.4832	0.071	-0.06	- 0.2122	- 0.1158	0.3392	- 0.0789
p13	0.597	0.4502	0.0853	-0.045	-0.086	0.1351	0.0591	0.1916
p14	0.7059	- 0.2034	- 0.4114	0.0257	- 0.2862	0.0823	- 0.1027	- 0.0211
p15	0.7014	- 0.1165	0.1665	0.117	0.2552	- 0.3263	-0.164	- 0.1058
p16	0.3578	0.2635	0.2023	0.6451	0.0411	0.1266	- 0.2833	0.1331

p17	0.2394	0.4394	-	-	-	-	-	0.5854
p18	0.252	0.6866	0.022	-	-	0.1154	0.2173	0.0504
p19	0.7903	-	-	0.0503	-	0.2066	-	-
p20	0.3598	0.4476	-	-	-	0.0941	0.1631	-
p21	0.6487	-	-	0.2981	-0.343	0.0061	0.0202	-
p22	0.6705	0.2105	-0.301	0.4743	0.0435	-0.177	-	-
p23	0.6321	0.5703	0.1967	-	-	-	0.1482	-
p24	0.672	-	0.1268	0.028	0.2245	0.0888	-	0.2368
p25	0.739	-	0.0355	0.0061	0.0744	0.0553	-	-
p26	-	0.0189	0.0005	-	-	0.2623	-	-
p27	0.5391	-	-	-	0.0695	0.1832	-	0.2873
p28	0.4834	-	0.1129	0.3857	0.1335	0.2734	0.3849	0.1401
p29	0.2314	-	0.4695	0.3199	0.3278	0.3335	0.0723	-
p30	0.7629	-0.184	0.0857	-	-	0.0484	-	-
p31	0.3367	0.0815	0.3319	0.2252	0.3696	0.0727	-	0.1355
p32	0.7361	-	0.2931	-	0.2923	0.1666	0.1562	0.0829
p33	0.72	0.1822	0.1959	-	0.0146	0.0788	-	-

p34	0.7457	-0.092	-	-	0.0641	0.3663	-	-
p35	0.7639	0.0351	0.0949	0.0383	-0.165	0.2246	-	0.2278
p36	0.3001	-	0.4668	0.3695	0.2571	0.0001	0.3359	0.0269
p37	0.7683	-	0.3783	0.2134	0.0346	0.1338	-0.146	0.1983
p38	0.8536	-	0.2334	0.2882	-0.115	-0.019	0.0361	0.0189
p39	0.8372	0.0926	-	0.1054	0.0478	0.1597	0.0615	-0.153
p40	0.1294	0.7343	0.0029	-	0.0863	0.0368	0.2013	0.0745
p41	0.8754	0.0054	-	0.0369	-0.055	0.2939	0.0604	-
p42	0.3408	0.3244	-	0.1721	0.4989	0.3668	0.0074	0.1934
p43	0.6796	0.2108	-	0.2674	0.0758	0.0273	0.1181	0.3657
p44	0.3774	0.1173	0.6875	-	0.2273	0.1045	0.0824	0.0844
p45	0.6677	0.3915	0.2098	-	0.0769	0.1431	0.0631	0.1352
p46	0.6834	0.142	0.0284	-	0.3038	0.1489	0.1833	0.1937
p47	0.6918	0.3275	0.1048	-	0.0314	0.2758	-0.462	0.0038
p48	0.6909	-	0.1556	0.2101	0.2713	0.0521	0.0472	0.0384
p49	0.6367	-0.464	0.0799	-	0.1893	0.0864	-0.102	0.0873
p50	0.6011	-	0.3685	0.2235	0.1328	0.2819	0.0693	0.3096



p51	0.652	0.1762	0.0369	0.2161	0.5293	0.2222	-	0.1063	0.0083
p52	0.8273	0.2349	0.0509	0.1751	0.037	-	-	-	0.1925
p53	0.6188	-0.493	0.1356	0.0986	-	0.2414	0.1141	0.0743	-
p54	0.6815	0.1501	0.0788	0.1164	-	0.0977	0.1639	0.0637	0.3686
p55	0.305	-	0.0401	0.4687	0.3841	-	-	-	-0.113
p56	0.5591	-	0.3746	0.2011	0.017	-	0.3932	0.2711	0.1969
p57	0.6367	-0.464	0.1798	0.2894	0.0864	-0.002	0.1873	0.0039	
Eigenvalues	20.822	5.4076	3.3701	3.0111	2.5654	2.2567	1.8598	1.7776	
% expl.Var.	37	10	6	5	5	4	3	3	

## Appendix L – Alternative Factor Solutions for Q-Sort One

**Stage One:** Exploratory. Include all of the factors. A principal component factor analysis revealed 14 factors with eigenvalues over 1. The *Kaiser–Guttman* criterion (Guttman, 1954; Kaiser, 1960, 1970) criterion states that all eigenvalues below 1 should be discarded. In PQMethod, a varimax rotation will only rotate a maximum of 8 factors, so 8 factors were included in the analysis.

\*\* Correlations were high between some factors, suggestive of a strong degree of overlap between factors. If two factor arrays are significantly correlated this may mean they are too alike to interpret as separate factors and that they could be alternative manifestations of a single viewpoint.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sort Loadings (Ps)
1	20.82	37.18	23	1, 9, 14, 19, 21, 25, 30, 38, 39, 41, 46, 48, 49, 53
2	5.41	9.66	11	5, 12, 13, 18, 23, 40
3	3.37	6.01	7	6, 29, 44
4	3.01	5.38	10	11, 16, 42, 51
5	2.57	4.58	4	3, 17
6	2.26	4.03	5	4, 31, 55
7	1.86	3.32	6	26, 28
8	1.78	3.17	8	10, 36

**Stage Two:** different criteria for selecting factors.

*Criteria One:* Brown (1980) suggests that factors that have two or more significant factor loadings following extraction should be accepted. A significant factor loading at the 0.01 level can be calculated using the following equation (Brown, 1980: 222–3):

$$\text{Significant factor loading} = 2.58 \times (1/\sqrt{\text{no.items in q-sort}}) = 0.44$$

A check of the factor loadings listed in the PQMethod 'Unrotated factor matrix' suggests that factors one (40), two (10), three (6), four (4) and six (2) all satisfy this criterion and could legitimately be extracted and rotated. Factors 5

and 8 only had 1 and 7 had none. I have therefore only rotated 5 factors to explore the outcome.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	20.82	37.18	25	1, 2, 10, 14, 15, 19, 24, 25, 27, 30, 32, 34, 37, 38, 48, 49, 50, 53, 56
2	5.41	9.66	15	5, 7, 12, 13, 17, 18, 23, 40, 45, 46, 47
3	3.37	6.01	7	4, 6, 44, 55
4	3.01	5.38	10	11, 16, 22, 26, 42, 51
5	2.57	4.58	6	3, 21,

Criteria Two:

The second method is Humphrey's rule, which 'states that a factor is significant if the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error' (Brown, 1980: 223). The standard error is calculated as follows:

Standard error =  $1 / (\sqrt{\text{no. of items in qset}}) = 0.17$ . Twice the standard error is 0.34.

Looking at the 'Unrotated factor matrix', the two highest loadings on Factor 1 are 0.85 and 0.86, which means that a cross-product for this factor of 0.73 ( $0.85 \times 0.86$ ) and so this factor should be extracted.

Factor 2 –  $0.69 \times 0.73 = 0.50$

Factor 3 –  $0.69 \times 0.68 = 0.47$

Factor 4 –  $0.65 \times 0.54 = 0.34$

Factor 5 –  $0.53 \times 0.42 = 0.22$

Factor 6 –  $0.46 \times 0.47 = 0.22$

Factor 7 –  $0.43 \times 0.38 = 0.16$

Factor 8 –  $0.59 \times 0.37 = 0.22$

Applying Humphrey's rule in this strict fashion suggests that only *four* factors should be extracted from the data set.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	20.82	37.18	26	1, 2, 9, 10, 14, 15, 19, 21, 24, 25, 27, 30, 32, 34, 35, 37, 38, 39, 41, 48, 49, 50, 53, 56
2	5.41	9.66	14	5, 7, 12, 13, 17, 18, 23, 40, 45, 47
3	3.37	6.01	7	6, 29, 36, 44, 55
4	3.01	5.38 58.23	11	16, 22, 26, 28, 42 44

*Criteria Three:* Humphrey's rule can, however, be applied less strictly by insisting that the cross-products simply exceed the standard error. In these circumstances, the extraction of seven factors would clearly be acceptable as seven factors are above 0.17.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	20.82	37.18	26	1, 9, 10, 14, 19, 21, 24, 25, 30, 34, 35, 37, 38, 39, 41, 48, 49, 50, 53, 56
2	5.41	9.66	12	5, 12, 13, 17, 18, 20, 23, 40
3	3.37	6.01	7	6, 29, 44
4	3.01	5.38	10	11, 16, 22, 51
5	2.57	4.58	4	3
6	2.26	4.03	6	4, 31, 55
7	1.86	3.32	5	26, 28

## Appendix M - Alternative Factor Solutions for Q-Sort Two

**Stage One:** Exploratory. Include all of the factors. A principal component factor analysis revealed 17 factors with eigenvalues over 1. The *Kaiser–Guttman* criterion (Guttman, 1954; Kaiser, 1960, 1970) criterion states that all eigenvalues below 1 should be discarded. In PQMethod, a varimax rotation will only rotate a maximum of 8 factors, so 8 factors were included in the analysis.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sort Loadings (Ps)
1	33.1943	58.24	18	9, 38, 39, 41, 48, 50
2	2.5487	4.47	3	26
3	2.1273	3.73	7	31, 56
4	1.9077	3.35	12	20, 27
5	1.6500	2.89	17	1, 30
6	1.5991	2.81	11	12, 44
7	1.3267	2.33	7	5, 13, 29
8	1.2260	2.15	4	17

**Stage Two:** different criteria for selecting factors.

*Criteria One:* Brown (1980) suggests that factors that have two or more significant factor loadings following extraction should be accepted. A significant factor loading at the 0.01 level can be calculated using the following equation (Brown, 1980: 222–3):

$$\text{Significant factor loading} = 2.58 \times (1/\sqrt{\text{no.items in q-sort}}) = 0.42$$

A check of the factor loadings listed in the PQMethod 'Unrotated factor matrix' suggests that factors one (56), two (3) and four (2) satisfy this criterion and could legitimately be extracted and rotated. I have therefore only rotated 3 factors to explore the outcome.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	33.1943	58.24	29	1, 4, 6, 8, 9, 11, 14, 17, 22, 23, 31, 34, 36, 38, 39, 41, 43, 47, 48, 50, 52, 54, 55, 57
2	2.5487	4.47	13	5, 15, 26, 29, 37, 51
3	2.1273	3.73	24	7, 10, 12, 16, 18, 20, 24, 27, 28, 33, 35, 40, 42, 44, 46, 49, 53, 56

#### Criteria Two:

The second method is Humphrey's rule, which 'states that a factor is significant if the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error' (Brown, 1980: 223). The standard error is calculated as follows:

Standard error =  $1 / (\sqrt{\text{no. of items in qset}}) = 0.164$ . Twice the standard error is 0.329.

Looking at the 'Unrotated factor matrix', the two highest loadings on Factor 1 are 0.922 and 0.923, which means that a cross-product for this factor of 0.864 ( $0.922 \times 0.923$ ) and so this factor should be extracted.

Factor 2 –  $0.565 \times 0.641 = 0.362$

Factor 3 –  $0.411 \times 0.380 = 0.156$

Factor 4 –  $0.479 \times 0.431 = 0.206$

Factor 5 –  $0.474 \times 0.330 = 0.156$

Factor 6 –  $0.395 \times 0.457 = 0.180$

Factor 7 –  $0.376 \times 0.370 = 0.139$

Factor 8 –  $0.407 \times 0.378 = 0.153$

Applying Humphrey's rule in this strict fashion suggests that only *two* factors should be extracted from the data set.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	33.1943	58.24	41	1, 2, 3, 4, 6, 8, 9, 11, 14, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 30, 31, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 57
2	2.5487	4.47 62.71	22 63	5, 7, 10, 12, 13, 15, 16, 19, 26, 29, 32, 37, 44, 51, 56

*Criteria Three:* Humphrey's rule can, however, be applied less strictly by insisting that the cross-products simply exceed the standard error. In these circumstances, the extraction of four factors would clearly be acceptable as seven factors are above 0.164.

Factor	Eigenvalue	% Variance before Rotation	% Variance after Rotation	Number of Sorts Loading (Ps)
1	33.1943	58.24	26	1, 8, 9, 11, 17, 22, 23, 31, 36, 38, 39, 41, 47, 48, 50, 54, 55
2	2.5487	4.47	14	5, 13, 15, 29, 37
3	2.1273	3.73	20	20: 7, 10, 12, 16, 18, 20, 24, 40, 44, 46, 53, 56
4	1.9077	3.35 69.79	10 70	10: 3, 26, 27

# Appendix N – Factor Loadings for Q-Sort One

Statements	Factors				
	One	Two	Three	Four	Five
Conspiracy believers spend a lot of time reading about conspiracies on the internet	1	3	3	3	1
Conspiracy beliefs assume that conspirators act in secret	1	2	4	4	0
Conspiracy beliefs can be fun and entertaining	-2	0	4	4	2
People enjoy talking to conspiracy believers	-1	-1	3	3	-2
Conspiracy beliefs assume that events are caused by large groups of conspirators acting independently	-1	-2	-2	0	-1
Conspiracy beliefs are logical and rational	-4	0	-2	1	-2
Conspiracy believers are crucial in exposing real-life conspiracies (e.g. Watergate)	0	4	-1	-1	-3
Conspiracy believers think that the media routinely expose conspiracy theories	-1	-3	0	0	-1
Conspiracy believers distrust academic researchers and scientists	2	0	0	0	2
Conspiracy believers think that all important information is being shared with the public	-3	-4	-3	-4	-2
The conspirators in conspiracy beliefs are often powerful elites	0	4	0	3	0
The conspirators in conspiracy beliefs are often governments or officials	0	3	1	2	1
The conspirators in conspiracy beliefs rarely involve people from religious groups (e.g. Jews, Muslims etc.)	-2	-2	-3	-2	-4
Conspiracy beliefs take accepted facts but then make a big leap of faith to reach	3	-2	-4	1	0



conclusions that aren't supported by the facts.					
Conspiracy believers think events happen because of the planned actions of small groups, rather than broader forces like economic or political systems	1	1	-2	-1	3
Conspiracy beliefs assume that conspirators manipulate events to serve their own interests	2	2	-1	2	-2
Conspiracy believers do not believe that there is an intentional plan behind world events	-2	-3	-1	-4	-2
Conspiracy believers believe that they are the only ones who understand 'what is really going on'	3	1	1	1	2
Conspiracy beliefs are so complex that it can be hard to definitively disprove them	1	0	0	-1	-4
Conspiracy believers think that all politicians and officials are corrupt	-1	0	-2	-1	3
The conspirators in conspiracy beliefs do not typically involve intelligence agencies	-1	-3	-1	-2	2
Conspiracy beliefs can have serious negative consequences, such as parents not vaccinating their children	4	1	4	0	1
A lot of people believe in conspiracies	0	-1	3	3	-3
Conspiracy beliefs lead to some groups of society being treated badly	0	1	2	0	0
Conspiracy believers see those who disagree with them as hoodwinked or deluded	2	2	1	1	4
People use the term 'conspiracy theorist' as a way of undermining a view they disagree with	0	3	2	-3	-1
Conspiracy believers assume that there is only one explanation for an event when, in fact, there are a number of equally plausible explanations	3	-1	1	0	1

Conspiracy believers think that there are no hidden connections or patterns behind world events	-3	-4	0	-3	-1
Conspiracy beliefs have caused a destructive level of mistrust in society	1	0	1	-2	1
Conspiracy believers interpret facts to fit their predetermined theory	4	-1	2	2	3
Conspiracy beliefs are based on evidence, rather than innuendo and suspicion	-4	1	-3	-1	-1
Conspiracy believers reinforce each other's ideas	2	2	2	1	3
Conspiracy beliefs prevent elites from gaining too much power	-2	-2	-1	-3	0
Conspiracy believers are happy to change their belief when they are presented with evidence which challenges it	-3	-1	0	-2	-3

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
p1	0.861	0.049	-	-	-	-	0.0613	0.0269
p2	0.7812	0.1167	0.0144	-	-	0.0128	0.0636	-
p3	0.622	-	0.0658	0.4792	-	-	-	-
p4	0.6373	-	-	0.1783	0.2621	-	-	0.4078
p5	0.5472	0.3263	0.1871	0.3676	0.1651	0.3958	0.1182	0.045
p6	0.8623	-	-	0.1453	-	-	-0.091	0.1679
p7	0.8601	0.247	0.1477	0.0141	-	0.1998	-0.098	-
p8	0.9109	-	-	-	-	-	0.0523	-
p9	0.7837	-	0.045	-	0.0837	0.1244	-	-
p10	0.6614	0.2719	0.2227	0.0144	-	0.1183	-0.138	0.3785
p11	0.8733	-	-	-	0.0136	0.1163	-	-
p12	0.4604	0.5653	0.3805	0.057	0.0899	0.0998	-0.001	-
p13	0.6945	0.1236	-	0.4316	0.0869	-	0.2788	0.2264
p14	0.747	-	-	0.0976	0.2085	-	0.0397	-
p15	0.7209	0.2726	-	0.0623	-	0.0809	0.0279	-
p16	0.7813	0.2674	0.1568	-	0.1096	0.0203	-	0.0213

p17	0.5407	- 0.0822	-0.295	- 0.1861	0.1891	0.2641	- 0.2584	0.3531
p18	0.6176	- 0.0238	0.2902	- 0.3053	0.0868	- 0.0552	0.0694	- 0.2254
p19	0.8281	0.155	- 0.1717	0.0149	0.1386	-0.025	- 0.1446	- 0.1536
p20	0.6594	- 0.0394	0.3609	0.1339	- 0.0085	- 0.0613	- 0.2253	- 0.0384
p21	0.9024	0.1296	- 0.1071	- 0.0811	0.0131	- 0.1669	- 0.0788	0.0344
p22	0.9218	- 0.0048	- 0.1618	- 0.0748	0.1145	- 0.1162	- 0.0411	0.0408
p23	0.9233	- 0.1462	- 0.0078	- 0.0888	0.1222	- 0.1611	- 0.0506	- 0.0483
p24	0.7547	-0.021	0.277	- 0.0606	- 0.1352	- 0.3554	- 0.0216	0.064
p25	0.8614	0.0371	0.1028	0.0539	-0.03	- 0.0423	- 0.1681	- 0.1474
p26	0.0032	0.6411	- 0.1022	- 0.3065	0.4744	- 0.3509	- 0.0655	- 0.0489
p27	0.6182	- 0.2648	0.249	0.3537	0.235	- 0.2445	- 0.0666	0.0726
p28	0.6726	0.115	0.1364	0.11	0.2122	- 0.2025	- 0.0454	- 0.1616
p29	0.4387	0.4264	- 0.3217	0.2341	- 0.1411	- 0.2767	0.3769	-0.142
p30	0.8236	0.0514	0.052	- 0.1436	- 0.3099	- 0.1952	- 0.0519	- 0.0652
p31	0.5037	- 0.0685	0.0005	-0.38	- 0.2803	-0.1	0.2674	0.2493
p32	0.7946	0.2443	- 0.0426	0.1367	0.12	0.2752	- 0.0584	0.0781
p33	0.8265	0.1017	0.1114	0.0915	0.077	0.0645	0.0887	0.108

p34	0.9181	- 0.0029	- 0.0737	- 0.0492	0.0184	- 0.1593	- 0.1323	- 0.0516
p35	0.9022	0.0354	0.1169	- 0.1035	- 0.1808	- 0.1326	- 0.1324	0.071
p36	0.8234	-0.143	0.0351	- 0.1057	0.2552	0.1481	- 0.0997	0.0551
p37	0.7849	0.2787	- 0.1341	0.1414	-0.18	- 0.0397	- 0.1372	0.1213
p38	0.8626	-0.121	- 0.1165	- 0.0979	0.1475	0.0277	0.2042	- 0.0964
p39	0.7946	- 0.2558	- 0.0764	- 0.1544	0.1681	0.2569	0.1062	- 0.0392
40	0.7396	- 0.0303	0.411	- 0.1668	- 0.1021	0.223	0.3084	- 0.0337
p41	0.7465	- 0.1931	- 0.1235	-0.068	0.1513	0.0141	0.3709	0.004
p42	0.7754	- 0.0112	0.2281	0.2278	0.0697	0.1436	- 0.1832	- 0.1164
p43	0.8595	- 0.1947	-0.044	0.0368	- 0.1802	- 0.1007	- 0.1123	- 0.1035
p44	0.7323	0.1576	0.1585	- 0.1815	- 0.1826	0.4574	- 0.1076	- 0.0234
p45	0.8716	- 0.0786	0.1117	-0.063	0.1361	- 0.0423	- 0.0277	0.0264
p46	0.8792	- 0.0311	0.2594	0.0088	0.0941	0.0819	0.0159	- 0.0782
p47	0.8733	- 0.0599	- 0.0794	- 0.1929	0.0046	0.0199	0.1267	0.1581
p48	0.8166	- 0.0952	- 0.0298	- 0.1942	0.1358	0.0618	0.0846	0.038
p49	0.7308	- 0.1007	0.172	0.3178	- 0.1032	0.0385	0.1059	-0.214
p50	0.8154	- 0.0926	- 0.3291	- 0.2458	0.1112	0.0252	-0.04	-0.108

p51	0.7594	0.3613	-	-	0.0111	-	-	-
p52	0.8604	-	-	0.14	0.0186	0.1226	0.0806	-
p53	0.7282	-0.076	0.2613	0.0012	0.0444	-	0.1538	0.1386
p54	0.8557	-	-	-	-	0.0988	-	-
p55	0.7331	-	-	0.043	-	0.0316	-	0.0042
p56	0.5802	0.1216	0.2934	-	0.0854	-	0.2879	0.3062
p57	0.6503	-	0.0065	0.273	0.0712	0.1082	0.3012	0.0941
Eigenvalues	33.1943	2.5487	2.1273	1.9077	1.65	1.5991	1.3267	1.226
% expl.Var.	58	4	4	3	3	3	2	2

#### Appendix P – Factor Loadings for Q-Sort One

	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>	<b>Factor 4</b>
When a majority of academic researchers and scientists endorse the belief	4	3	3	4
When the believer is very sociable and has lots of friends	0	0	-1	-1
When the belief appears to be hypothetically possible	2	4	1	1
When the believer is highly educated	2	2	0	0
When the evidence for and against the belief is confusing	-1	-3	-1	1
When the believer seems indiscriminately suspicious	-2	-4	-2	-1
When the believer is from a different social group (cultural, ethnic, religious, political etc.) to you	0	0	-1	-1
When the belief seems to involve jumping to a particular conclusion not supported by the evidence	-3	-4	-4	0
When most people you know don't believe it	0	-2	0	1
When the belief pins the blame for something on an identifiable group of people rather than something more abstract	0	0	-1	-2
When the conspiracy would have required lots of different people to co-operate	-2	1	1	3
When someone you think is credible believes it	3	2	1	0
When the belief is based on several different independent sources of evidence	4	0	4	2
When the believer will change their mind in light of evidence which contradicts the belief	1	-1	-1	1
When the believer seems to spend a lot of time on conspiracy websites	-1	-1	0	1
When official sources (e.g. government reports) do not support it	0	-1	1	0

When the believer does not seem gullible or naïve	1	1	1	3
When the belief is presented in an incoherent and hard to follow manner	-3	1	0	-3
When the belief is supported by a whistleblower who has had access to secret information	3	1	4	-2
When the believer only seems to talk to people who agree with them	-1	-1	-3	-2
When experts seem to disagree about the belief	-1	-3	-1	-3
When the believer is not obsessed by the belief	1	0	0	0
When the belief seems to be the simplest explanation of the evidence	1	1	2	1
When the believer can provide persuasive evidence for it	3	2	3	2
When the believer seems eccentric or odd	-1	-2	-1	0
When the believer seems to be open-minded about alternative explanations when they weigh up the evidence	2	3	3	4
When the conclusions reached seem to go beyond the evidence	-3	-1	2	-1
When you are aware of strong evidence which contradicts the belief	-4	-3	-4	2
When the belief fits with my own political views	1	0	0	-1
When the believer appears to have mental health difficulties	-1	-2	-2	-1
When the belief seems to be based on opinion rather than fact	-4	-2	-3	-3
When the argument for a belief seems circular	-2	1	-2	-4
When the belief doesn't involve making too many assumptions	2	2	2	3
When the belief just seems intuitively right	1	4	2	2



When the believer does not get overly emotional about the belief	0	3	0	0
When the believer only cites evidence which supports their belief and does not mention anything which might contradict it	-2	-1	-3	-2
When the belief seems to be unquestioned within the believer's social group	0	0	-2	-4